

CITY OF GREATER GEELONG

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CUSTOMER SERVICE CENTRE

100 Brougham Street Geelong VIC 3220 8.00am – 5.00pm

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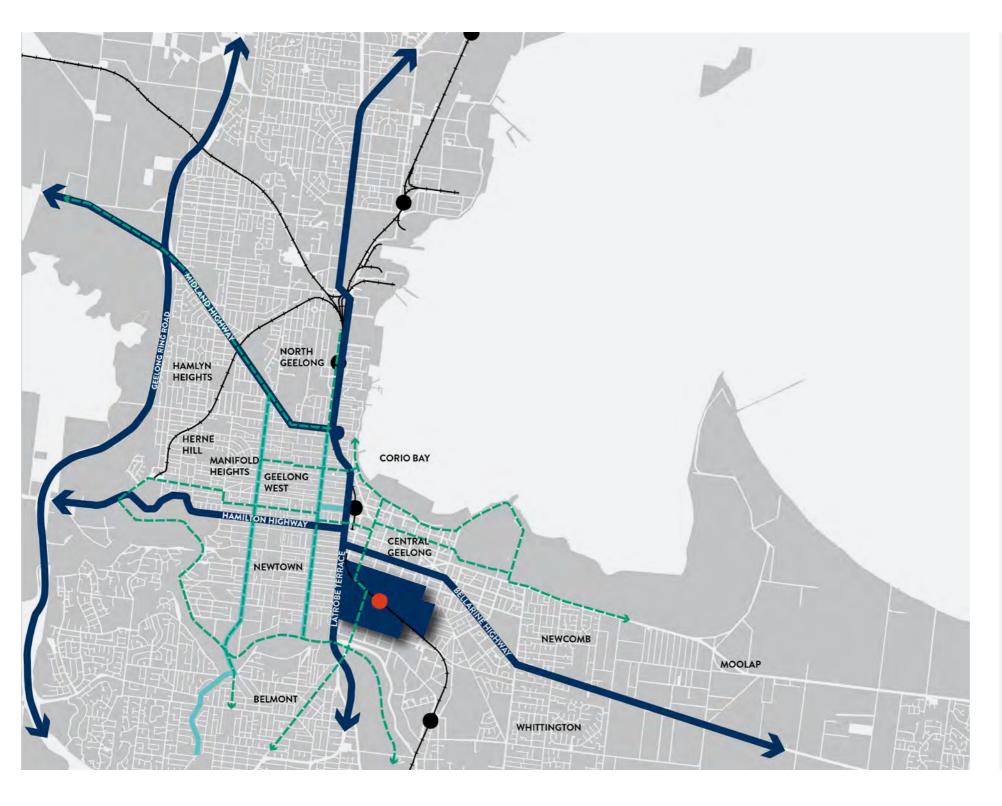
LATEST NEWS:

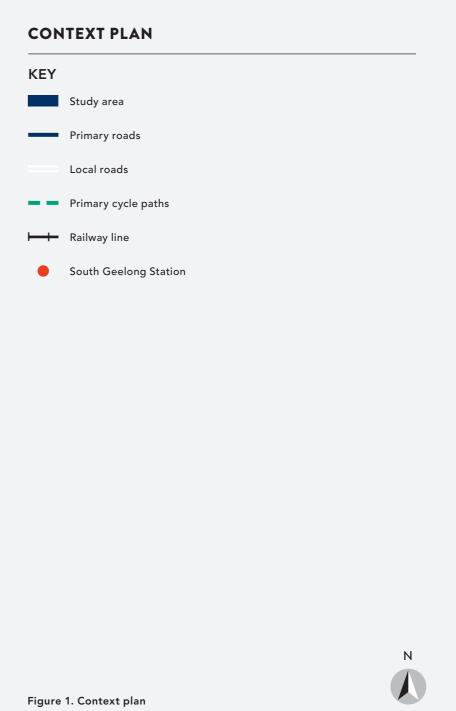
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AN URBAN DESIGN FRAMEWORK

An Urban Design Framework (UDF) provides strategic guidance for the future development of urban areas. It establishes an integrated design vision that involves the generation of ideas and the preparation of realistic design concepts based on community consultation, research and analysis. The vision is realised through tools such as planning scheme changes, capital works projects and guidelines for development.

REPORT STRUCTURE

In developing this urban design framework we have undertaken the following analysis and consultation:

RESEARCH (SITE, CONTEXT AND LITERATURE REVIEW)

- Conduct a review of existing plans, policies, strategies and infrastructure programs.
- Prepare a heritage character study for the study area.
- Prepare a universal design and access audit.
- Perform a systematic analysis of the study area's; use patterns, movement patterns, urban form and structure.
- Conduct an analysis of local strengths, weaknessess, opportunities and threats.
- Meet with Barwon Water, Department of Transport to understand current proposals and processes.
- Prepare a background report.

KEY STAKEHOLDER ENGAGEMENT

- Consult with Department of Transport and Regional Rail Victoria.
- Consult with Barwon Water.
- Consult with local busineses.

COMMUNITY CONSULTATION

- Consult with the community and other key stakeholders to understand aspirations, seeks ideas.
- Public survey conducted through the Geelong Australia webpage.

The structure of the report is as follows:

- Principles and analysis of issues and opportunities, existing policy framework, background reports and community consultation.
- The strategic framework, which includes the vision and key objectives and strategies for the study area.
- Key development area analysis and recommendations.
- Summary of finding and key recommendations including planning scheme changes.

STUDY INTRODUCTION

Underpinning this project is a need to link several public and private sector strategic projects together. These projects all seek to leverage off the South Geelong train station, Kardinia Park and the proximity of the location to services and infrastructure. Without the UDF these projects would occur in isolation of one another.

For the South Geelong residents and visitors, it is crucial that this UDF brings together their ideas and vision for their local neighbourhood. The UDF will seek to ensure the local area can continue to thrive, meeting community expectations and that the development and liveability potential of the area is unlocked.

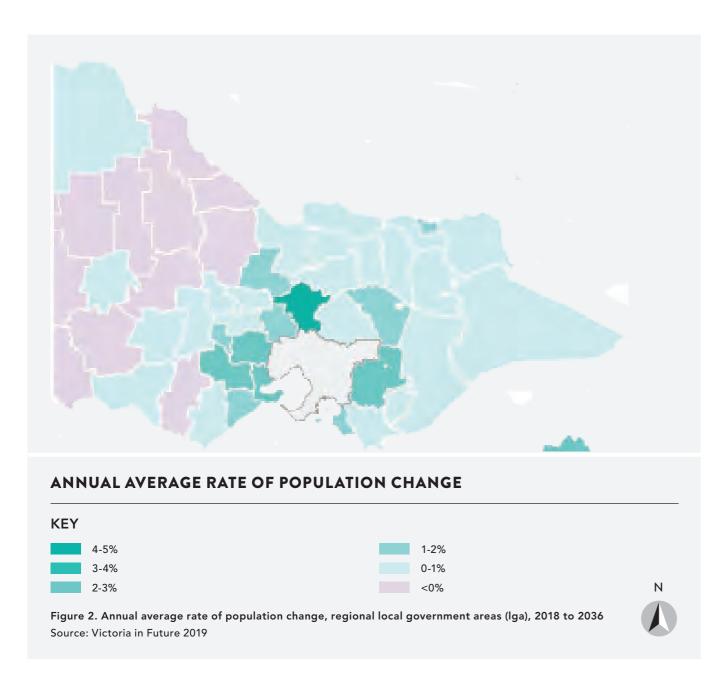
Particular project objectives are:

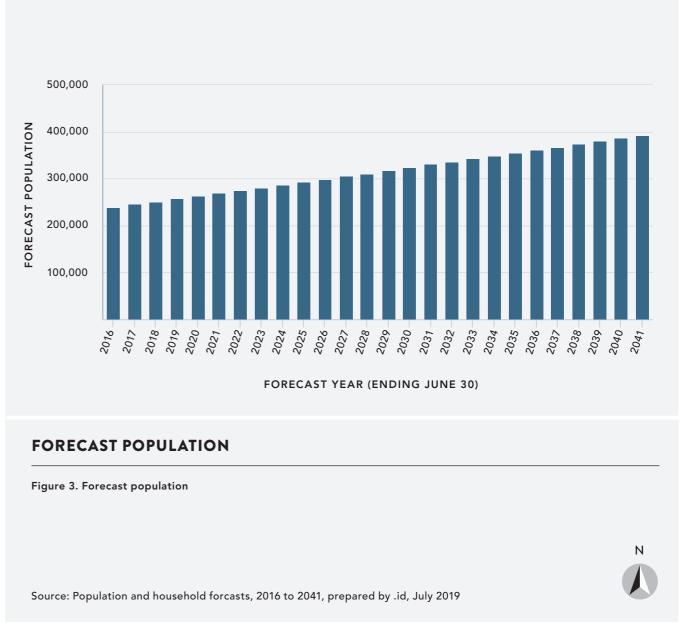
- To assist in implementing the City's settlement strategy by investigating the area for higher density development potential.
- To leverage opportunities from the Rail Duplication and Station Upgrade project currently being undertaken by Department of Transport (DoT).
- To prepare objectives, strategies, policies and plans to support the vision for South Geelong.
- To provide detailed design guidance and planning provisions for the area and development pressure areas.
- To identify priority projects and an implementation program to identify needs.

REGIONAL CONTEXT

Greater Geelong is one of the fastest growing regions in Victoria with stronger population growth than all other regional municipalities combined.

In 2016, the total population of the City of Greater Geelong was estimated to be 239,531 people. It is expected to increase by over 120,469 people to 360,000 by 2036. This is based on an increase of over 52,000 households during the period.





STRATEGIES

CLEVER AND CREATIVE

Representing the voices of more than 16,000 members of our community, Greater Geelong: A Clever and Creative Future is a 30-year vision that guides all levels of government, community organisations, businesses and anyone wanting to make a genuine contribution to the city-region. The clever and creative concept is about developing a consistent approach to how things are done, which is why all proposals to Council will need to demonstrate how they positively contribute to the 30-year vision. The clever and creative concept is also about collaborating to address challenges and opportunities, embracing innovation, and new ways of doing things that applies to everyone. At the heart of the 30-year vision are a series of community aspirations that are focused on the region's economy and employment, the environment, arts and culture, transport connections, tourism, efficient and equitable digital access, and good governance.

The vision recognises that in order for a city-region to be successful, it must be connected, prosperous, creative, sustainable and resilient, and designed for people. The South Geelong UDF can play a leading role in delivering a clever and creative future. The UDF's overall principles will respond to the community aspirations and positively contribute to achieving the measures of success.



A prosperous economy that supports jobs and education opportunities.



A fast, reliable and connected transport network.



An inclusive, diverse, healthy and socially connected community.



A leader in developing and adopting technology.



A destination that attracts local and international visitors.



Sustainable development that supports population growth and protects the natural environment.



Creativity drives culture.



People feel safe wherever they are.



Development and implementation of sustainable solutions.



Figure 4. Community aspirations from Clever and Creative strategy

PLAN MELBOURNE 2017-2050

Plan Melbourne is a metropolitan planning strategy that defines the future shape of the city and state over the next 35 years. It seeks to integrate long-term land use, infrastructure and transport planning, and support jobs and growth, while building on Melbourne's legacy of distinctiveness, liveability and sustainability. It advocates for urban consolidation and decentralisation, calling on Victoria's regional centres to assist Melbourne in housing, employing and educating the growing population.

SETTLEMENT STRATEGY

The City of Greater Geelong Settlement Strategy provides a framework and gives clear direction on where growth and development should occur, to ensure the City can meet the needs of the municipality by 2036 in a sustainable, planned, logical, integrated, efficient and cost-effective way. The Settlement Strategy seeks to increase the role of urban consolidation as part of Geelong's overall housing supply. The strategy seeks to facilitate infill development to increase its housing supply contribution to 50%, by 2047. The rail corridor from North Geelong through to Breakwater provides an opportunity to facilitate increased housing densities. To achieve this, investment in amenity and local facility improvements in and around these areas should occur.

HOUSING DIVERSITY STRATEGY

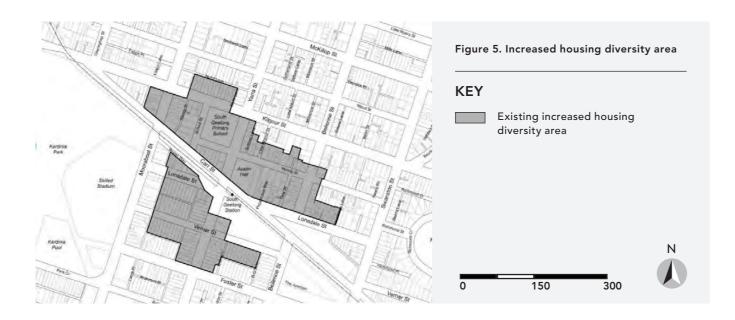
With almost 85% of Geelong's housing stock consisting of suburban detached 'family homes', increasing housing diversity will be a key factor in addressing housing need in the future. The Housing Diversity Strategy was adopted in 2007 to guide how urban consolidation should occur and provided the basis for the application of the new residential zones that were introduced into the Planning Scheme in 2014. Clause 22.63 of the Greater Geelong Planning Scheme provides the policy that applies to all residential land located in Increased Housing Diversity Areas (IHDA).

The policy divides the established urban area into three categories:

- Key Development Areas Higher density and mixed-use housing.
- Increased Housing Diversity Areas a mix of conventional housing with some medium density housing around activity centres and train stations.
- Incremental Change Areas primarily conventional residential housing.

The housing categories are described as:

HOUSING DEFINITION	DESCRIPTION	DENSITY		
Conventional housing	Single detached dwellings on lots generally ranging between 500 and 1,000 square metres (sqm). The development of an area for conventional housing.	Generally, results in a gross residential density of 10 – 15 dwellings per hectare.		
Medium density housing	The provision of two or more detached or attached dwellings, townhouses or apartments on a site below four stories.	The development of an area for medium density housing generally results in a gross residential density of 20 – 40 dwellings per hectare.		
Higher Density housing	Attached townhouses or apartments, usually more than 3 storeys in height.	The development of an area for high density housing generally results in a gross residential density of more than 40 dwellings per hectare.		

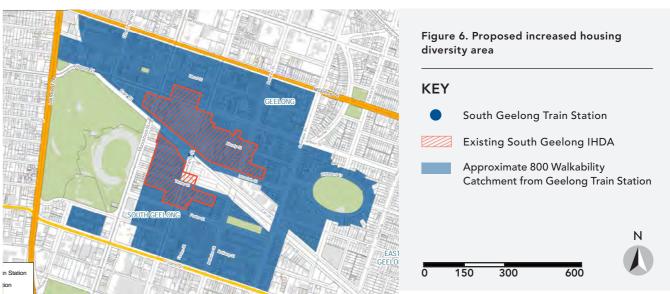


CHANGES TO THE HOUSING DIVERSITY AREA

South Geelong train station is a significant commuter station which has the potential to become a more intensive hub activity. The area surrounding the South Geelong train station is nominated as an increased housing diversity area (IHDA) and is expected to cater for areas of change in housing type and density. IHDA areas can provide residents local shopping needs and/or are serviced by public transport, meaning that new development should encourage walking as a viable alternative to private vehicles. The IHDA policy includes design objectives for delivering housing that positively contributes to the neighbourhood, regardless of whether they involve redevelopment of existing housing stock, new medium or higher density developments. This policy aims to avoid a one size fits all approach in order to provide choice in housing types that reflect the local context and responds to heritage, significant vegetation, as well as topography and views while catering for the housing needs of a diverse range of future residents.

The significant changes proposed around the train station and Kardinia Park will result in an increased connection to public activity areas and a major active transport link in the Bellerine Rail Trail. The significant number of properties that have a heritage overlay within the area constrains the proposed intensification of density around the train station. Because of this, it is considered that the size of the IHDA catchments should be increased to approximately 800 metres. This will offer more opportunity for development within close proximity to the station and other amenity.

The Barwon Water site and the existing Commercial 2 Zoned land on the east side of Moorabool Street should both be defined as key development areas. Both areas are within approximately 800 metres of the South Geelong Station and could potentially have capacity to provide higher density housing opportunities in excess of 40 dwellings per hectare and accommodate development which exceed 3 storeys in height.



RETAIL STRATEGY 2020-2036

The City has prepared a Retail Strategy that provides a review of current retailing trends, land use, population growth and makes recommendations for changes to planning policy. The strategy will guide retail development in Greater Geelong until 2036 in order to ensure residents continue to have access to essential retail services. Retail trade is one of the region's largest employment sectors, employing 12.7% of the population in 2016.

Below are some of Geelong's key opportunities and challenges recognised in the Strategy;

- population growth directed at greenfield locations which create demand for new retail centres.
- supermarket and bottleshops currently dominate retail sales across Geelong but typically offer little support to other stores within a centre.
- restricted retail floorspace is generally over supplied across the municipality.

The Retail Strategy identifies Moorabool/Fyans Precinct, South Geelong as a dispersed restricted retail centre. The retail strategy does not support the growth of this centre beyond current commercial zone land. The land along Moorabool Street is identified as having small land parcels and a lack of car parking making the area unattractive as a modern restricted retail precinct. The area south of Moorabool Street which is not a part of the study area, forms part of a separate urban renewal precinct and is guided by the Fyans-West Fyans Precinct Structure Plan. It is envisaged that over time this broader area will transition to a mixed use, primarily residential precinct.

SOCIAL HOUSING PLAN 2018 - 2041

This strategy seeks to:

- Increase the supply of social housing across the City area to 13,500 by 2041.
- Advocate for increased state and federal investment in new social housing.
- Increase supply of social housing by contributing City-owned land to new developments.
- Amend the City's Planning Scheme to require the inclusion of social and affordable housing in new developments based on need.
- Continue to revitalise our neighbourhoods of high social housing to increase liveability and wellbeing.

It is council policy to seek a social and affordable housing assessment as part of the rezoning of major sites such as the Barown Water site or Moorabool Street.

URBAN FOREST STRATEGY

The City of Greater Geelong values the immense benefits of the City's urban tree population. Our trees provide shade and cool the city. They improve the look, feel and liveability of Geelong. They also have a strong positive influence on the health of our community. Geelong's trees are extraordinarily valuable assets that are worth investing in for the future.

The City seeks to reach an ambitious target of improving Geelong's tree canopy cover from 14% to 25% over a thirty-year period. The City has enormous potential to develop a healthier and more dynamic urban forest and improve canopy cover in our streetscapes, urban growth areas, open spaces and reserves.

This strategy will achieve its vision by adopting four simple objectives into the City's day to day operations:

- To green the City.
- To cool the City.
- To engage the City's community and build regional partnerships.
- To demonstrate best practice urban tree management.

The prime opportunities are:

- 45,000 existing vacant nature strips in our streets.
- Developing tree lined entrances to our city.
- Revegetation of the Greenway, the Ted Wilson Bike Trail alongside the Geelong Ring Road.
- Thousands of tree planting locations across Geelong's open space network.
- Improving the quality of streetscapes and open space in urban growth areas.
- Planting more indigenous trees in wetland reserves and conservation areas.
- Rejuvenating and renewing avenues and boulevards in heritage landscapes.

OTHER RELEVANT PROJECTS

KARDINIA PARK TRUST – MASTERPLAN

The Kardinia Park Stadium Trust (the Trust) was established as a statutory authority pursuant to the Kardinia Park Stadium Act 2016.

The Trust is established to administer, promote and manage the Kardinia Park Stadium Trust Land, within an over-arching objective of contributing to the economic, community and liveability benefits to Geelong and the broader region that arise from the use of the stadium.

The trust is custodian to the Stadium and the adjacent hard stand car park facilities equating to 7.035 hectares of space within Kardinia Park, except on major event days the Trust assumes custodian responsibility for the stadium and adjacent parkland.

A masterplan for the stadium and the surrounding park land will be prepared by the City and Kardinia Park Trust in conjunction with other stakeholders. The masterplan will detail the final stage of the redeveloped stadium (stage 5) and integration with the balance of the park. Access to and from the stadium, parking, commercial and sporting uses will be considered within the masterplan.

BETTER BIKES

A fast, reliable and connected transport network is part of our 30-year community-led vision for a clever and creative city. To reach our goal of half of all journeys to work made by public transport, walking or cycling, we need better bike connections around greater Geelong. It means safer riding, less congestion, cleaner air and healthier residents.

The Council received a \$4.7 million grant from the TAC's Safer Pedestrian and Cyclist Fund to create two cycling connections:

- The southern link will connect Central Geelong with Waurn Ponds via Belmont.
- The western link will connect Central Geelong with Herne Hill via Geelong West.

Adopting best practice from around the world, the cycling routes will include a combination of protected bike lanes (where bikes are separated from cars) and a shared use system (where cars and bikes share the road). Both routes are designed to be used by cyclists of a wide range of ages and abilities to safely ride to destinations like shopping areas and key employment precincts.

The southern route connects central Geelong to Waurn Ponds via Moorabool Street. The City has undertaken an extensive consultation process to determine the most appropriate route and functionality for the bicycle lanes. The design of Moorabool Street has adopted the recommendation from the Better Bikes project.

SAFER TRAVEL IN LOCAL STREETS (STILS)

The City of Greater Geelong has recently undertaken a review of street safety. The review identified that streets in South Geelong had a history of high injury crashes and would benefit from measures to make local streets safer. Feedback received during the community workshops as part of the South Geelong UDF highlighted that residents and visitors to the area want safer local roads for all user groups including pedestrians, cyclists and motorists.

The City is in the process of identifying where possible, improvements to the safety of streets within South Geelong should occur. The City is seeking funding through State Government road safety programs to enable improvements to the streets to be carried out.

Figure 57. captures the concerns raised by residents during consultation and the current thinking of Council officers regarding the need to make improvements to streets.

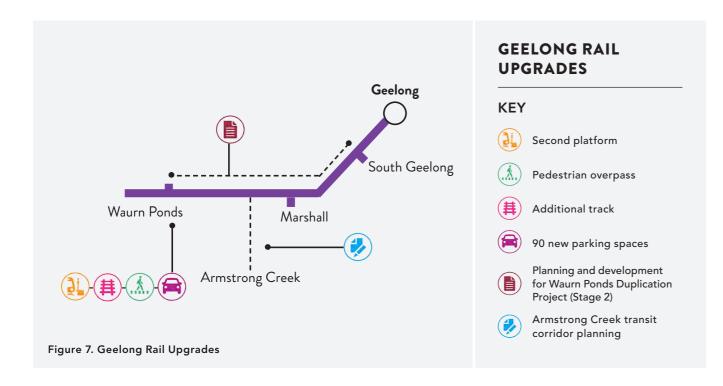
THE GEELONG LINE UPGRADE - SOUTH GEELONG TO WAURN PONDS RAIL DUPLICATION

The Geelong Line Upgrade is part of the staged upgrade of the Geelong Line and the first step in delivering track duplication from South Geelong to Waurn Ponds to enable more frequent and reliable services for passengers.

Stage 1 of the Geelong Line Upgrade will deliver the Waurn Ponds Station upgrade, including a new pedestrian overpass to create a user-friendly, safe and accessible connection between platforms for station users.

Stage 2 of the Geelong Line Upgrade includes planning and development for the Waurn Ponds Duplication Project, which will duplicate the line between South Geelong and Waurn Ponds to enable more frequent and reliable services for passengers along the line.

Construction on Stage 1 is due to get underway in mid-2020 and is targeted for completion in late 2021. The City is continuing to work with the relevant Rail Authorities in the development of the concept of the South Geelong Station.



COMMUTER CAR PARKING

The South Geelong Station Precinct experiences a high demand for access and parking, from commuters associated with the station. Pick up and drop offs at the South Geelong Primary School contributes to the high demand as well. The station carpark can be accessed via crossovers provided on Yarra Street and Verner Street where two all movement accesses and a single exit are provided.

There are 753 off-street, at-grade carparking spaces including eight disabled bays and five 10-minute kiss and ride spaces provided for commuter usage. Based on recent surveys undertaken by the Department of Transport these off-street parking areas are highly utilised.

Based on an inventory review by Department of Transport undertaken in 2018, on-street parking in proximity to the station includes:

- Foster St which provides 254 parking spaces with a mixture of unrestricted and 4P restrictions.
- Bellerine St provides 107 parking spaces with a mixture of unrestricted, 2P and 4P restrictions.
- Yarra St provides 67 parking spaces with a mixture of unrestricted, 2P and 4P restrictions.
- Verner St provides 104 parking spaces with a mixture of unrestricted, 1/4P, 1P, 2P and 4P restrictions.
- Lonsdale St provides 138 parking spaces with a mixture of 1/2P, 1P, 2P and 4P restrictions.
- Carr St provides 190 parking spaces which are unrestricted.
- Mundy St provides 123 parking spaces which are unrestricted.

SOUTH GEELONG RAILWAY STATION URBAN DESIGN FRAMEWORK: HERITAGE CHARACTER STUDY NOV 2019

The City of Greater Geelong engaged heritage consultant Dr David Rowe, Authentic Heritage Services Pty Ltd to prepare a heritage character study to inform the proposed South Geelong Railway Station UDF.

The objectives of this Heritage Report are:

- Confirm and refresh the historical evolution of the South Geelong Heritage Area (including the buildings and streetscape infrastructure) through historical research.
- Carry out physical analysis of the urban layout, built character, engineering infrastructure and public landscapes within the study area (through fieldwork and aerial imagery).
- Assess the existing conditions of existing heritage areas and identify additional heritage character areas following historical research and physical analysis.
- Provide recommendations on the future management of identified heritage character areas.
- Provide recommendations on new development within existing heritage overlays and heritage character areas, interpretation of historical assets, management of public landscapes and infrastructure that contribute to the heritage significance and character of the study area.

The report make a number of recommendations relating to heritage matters within the Study area. The key recommendations include:

- Consider further assessments of the heritage character areas identified in this report for inclusion as heritage overlays in the Greater Geelong Planning Scheme.
- Consider future assessment of individual properties as identified in the report for inclusion within a heritage overlay.
- Support the continued use of old historic shops and stores.
- Maintain the layout of streets.
- Retain uninterrupted view along Yarra, Swanston and Moorabool Streets.
- Protect existing bluestone kerb and channel.
- Reinstate a pedestrian bridge over the railway line at Bellerine Street.
- Additions to heritage building should continue to by sympathetic to the heritage character of the area, including two storey and modern additions.
- Large new development should occur outside heritage areas or potential heritage character areas identified in this report, not dominate significant heritage building, view lines or landmarks.
- Retain existing vegetation and consider new plantings. Particularly retain the three canary street palm date trees at the South Geelong Train Station.

PLANNING AND DEVELOPMENT CONTEXT

UNIVERSAL ACCESS AUDIT

In July 2019 Council engaged Galbraith Scott to undertake a universal access audit of the streets within the study area, between Mckillop and Fyans Streets and between Moorabool and Bellerine Streets.

In undertaking the audit, the principles of universal design were considered. Universal design means design that is suitable for most users to the greatest extent possible, without the need for specialised adaptation. A series of common design elements are referred to as appropriate in the audit findings and these include:

- Ground surfaces
- Pedestrian paths/ walkways
- Tactile ground surface indicators (TGSIs)
- Pedestrian road crossings
- Vehicle crossovers/ loading bays
- Parking

Several recommendations resulted from the audit. In summary the key recommendations are:

- Many streets within the study area do not meet minimum cross falls, or kerb cuts for people within limited mobility or vision impairment.
- There is a lack of TGSIs, or where they have been provided should be reviewed or upgraded.
- The wide streets make crossing difficult and require people to walk significant distances to the nearest safe crossing point. Additional safe crossing points such as pedestrian refuges should be provided in wide key pedestrian streets.
- There is a significant need to upgrade and maintain footpaths to meet Australian Standards.
- Street lighting should up upgrade or improved.
- Access across the railway track needs to be upgraded to be wheelchair accessible.
- The number of disable parking spaces in the area should be increased and meet Australian standard for access.
- The area would benefit from additional and consistent way finding signage.

This UDF recommends changes to several streets within the study area. As these streets are upgraded or changed, the findings from the audit should be incorporated into the final design of the streets. A copy of this report has also been provided to Council's Engineering Department for consideration during any streetscape renewal projects.

PLANNING SCHEME AFFECTING THE STUDY AREA

ZONES

Figure 8 shows the location of the different zones within the study area. Zoning controls are used to guide land use and built form outcomes. The zoning map indicates that much of the study area is located within a residential zone

COMMERCIAL 2 ZONE - MOORABOOL STREET

- Purpose is to encourage commercial areas for offices, appropriate manufacturing and industries, bulky goods retailing, and associated business and commercial services.
- There is no building height limit for this area.

RESIDENTIAL GROWTH ZONE 2 – 400M WALKABLE CATCHMENT AROUND TRAIN STATION

- To provide housing at increased densities in buildings up to and including four storey buildings.
- To encourage a diversity of housing types in locations offering good access to services and transport including activity centres and town centres.
- To encourage a scale of development that provides a transition between areas of more intensive use and development and other residential areas.
- A maximum building height limit of 10.5m applies to this area.

Note: In March 2020 Council resolved to rezone this area from RGZ2 to GRZ4 in response to state government zone changes to maintain the three storey height limit for this area.

GENERAL RESIDENTIAL ZONE 1 - BALANCE OF THE STUDY AREA

- To encourage development that respects the neighbourhood character of the area.
- To encourage a diversity of housing types and housing growth particularly in locations offering good access to services and transport.
- A preferred building height limit of 11m applies in this area.

PUBLIC PARK AND RECREATION ZONE - KARDINIA PARK, RICHMOND OVAL, HOPETOUN PARK AND GEORGE TRICKEY RESERVE

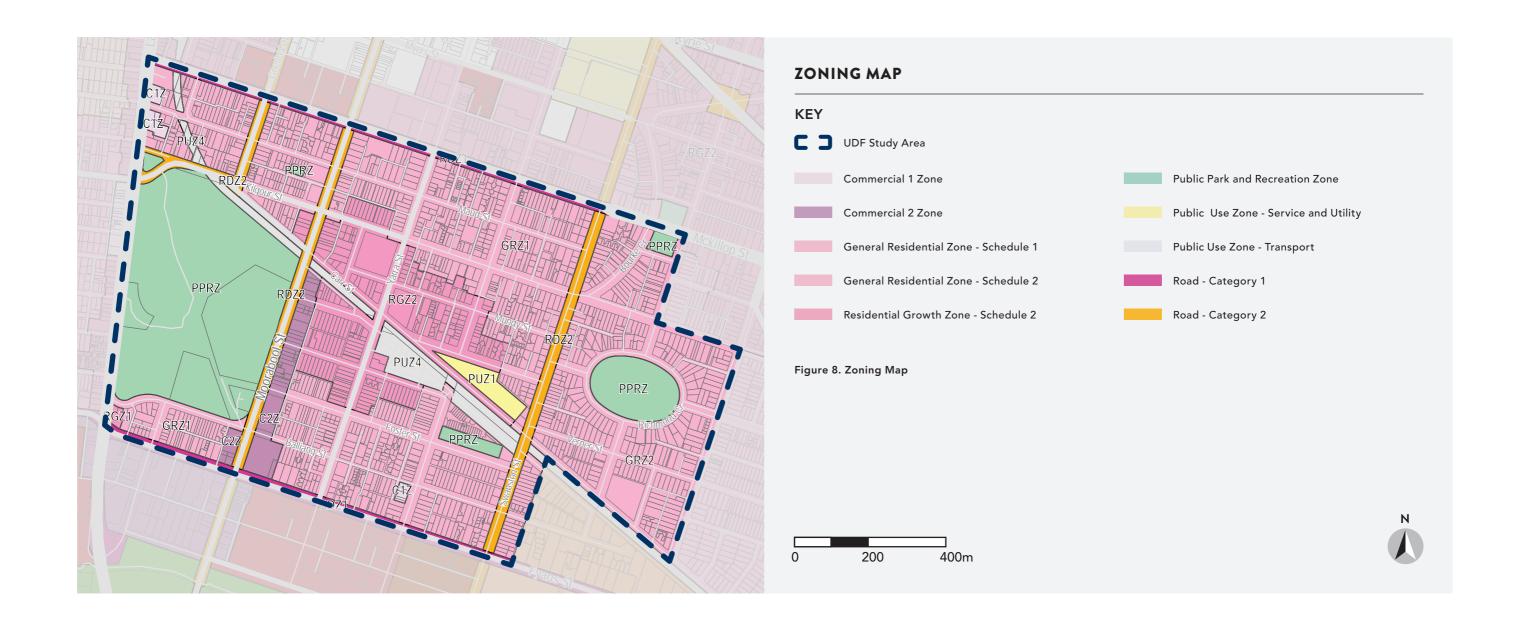
- To recognise areas for public recreation and open space.
- To protect and conserve areas of significance where appropriate.
- To provide for commercial uses where appropriate.

PUBLIC USE ZONE 1 - SERVICE AND UTILITY - BARWON WATER SITE

- Purpose is to recognise public land use for public utility and community services and facilities.
- To provide for associated uses that are consistent with the intent of the public land reservation or purpose.

PUBLIC USE ZONE 4 - TRANSPORT - RAIL CORRIDOR

- Purpose is to recognise public land use for public utility and community services and facilities.
- Purpose is to provide for associated uses that are consistent with the intent of the public land reservation or purpose.



OVERLAYS

Overlays are additional layers of planning control that determine the type of development that occurs and often reflect the need to address previous uses, specific site constraints, and/or strategic locations and relationships.

There are several heritage overlays within the study area. Figure 9 shows the location of the heritage overlays. Figure 9 indicates that there is a large number of heritage listed properties in the north of the study area toward McKillop Street.

Purpose

- To conserve and enhance heritage places of natural or cultural significance.
- To conserve and enhance those elements which contribute to the significance of heritage places.
- To ensure that development does not adversely affect the significance of heritage places.
- To conserve specified heritage places by allowing a use that would otherwise be prohibited if this will demonstrably assist with the conservation of the significance of the heritage place.

Below are key extracts of each of the Heritage Overlay Areas that relate to the study area:

HO 1641 CITY SOUTH HERITAGE AREA

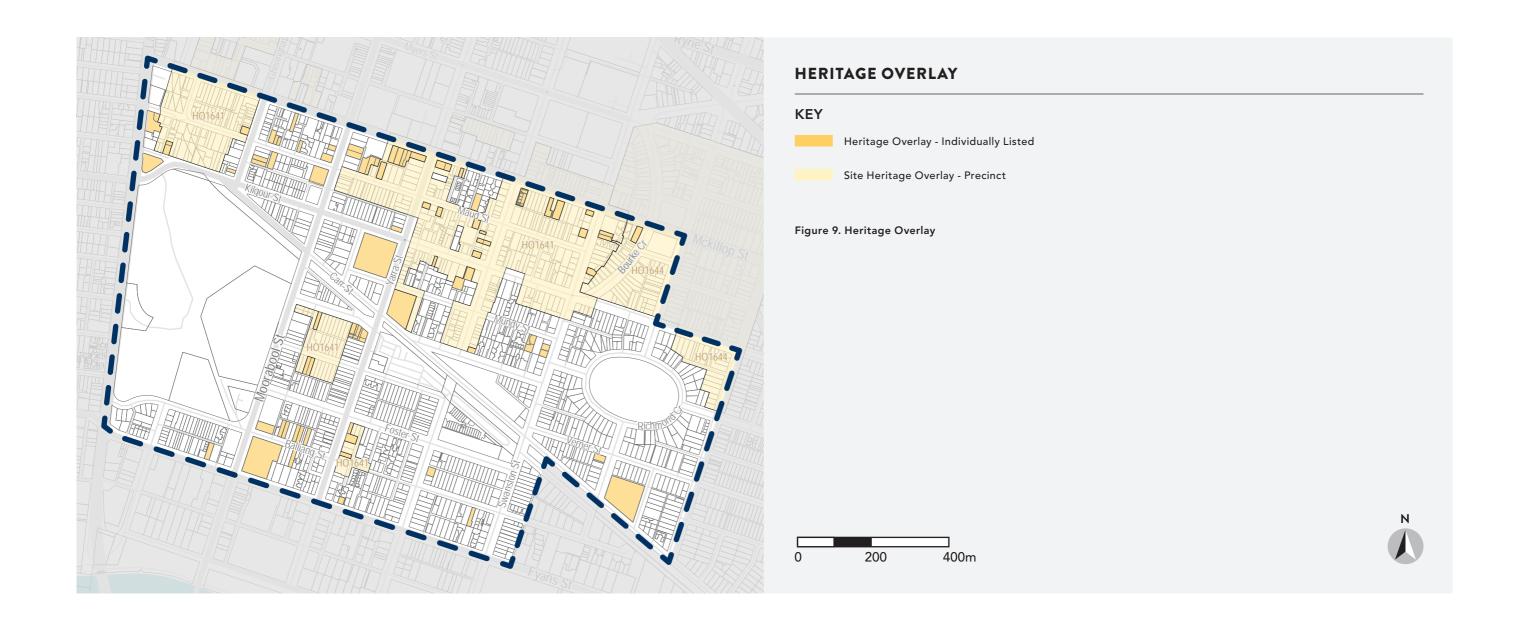
Objectives

- To retain the wide nature strips, street planting, generous building setbacks and garden settings.
- To maintain the distinctive patterns of form and siting determined by street width, where major roads have double fronted houses with generous setbacks and separation, and narrower streets have single fronted houses with smaller setbacks, subdivisions and less separation.
- To protect the intact groups of typical examples of Victorian, Edwardian and, to a lesser extent,
 Californian Bungalow styles predominantly single storey, detached houses.
- To encourage the contemporary interpretation of traditional building design within the area.
- To encourage the use of traditional construction materials in the area.
- To encourage the use of appropriate fence types, designs and locations.
- To encourage the appropriate development, form and scale of garages and/or carports.

HO1644: CITY SOUTH-EAST HERITAGE AREA

Objectives

- To retain the distinctive, original street planning, garden settings, street setback, and wide nature strips.
- To retain and enhance the combination of grand and modest residential buildings.
- To retain characteristics of intact houses of diverse architectural styles including late Victorian, Edwardian and California Bungalow styles.
- To retain the uniformity of scale of the area including single storey height, regular front and side setbacks, side or rear driveways, building separation and subdivision pattern.
- To encourage the contemporary interpretation of traditional building design within the area.
- To encourage the use of traditional construction materials in the area.
- To encourage the use of appropriate fence types, designs and locations.
- To encourage the appropriate development, form and scale of garages and/or carports.



OTHER OVERLAYS

Below are the overlays that affect the study area:

ENVIRONMENTAL AUDIT OVERLAY

This overlay is used on sites with potential contamination issues related to previous uses. Its purpose is to ensure potentially contaminated land is suitable for use which could be significantly adversely affected by any contamination.

DESIGN & DEVELOPMENT OVERLAY - SCHEDULE 36

The overlay identifies areas which are affected by specific requirements relating to the design and built form of new development. Schedule applies to the Emergency Medical Service (EMS) Helicopter Flight Path Area (H3 - Rooftop Helipad).

Ensures that the height of new development does not encroach on the flight path airspace areas associated with the Geelong Hospital rooftop helipad.

Ensures that the height of new development avoids creating a hazard to EMS helicopters operating in the vicinity of the Geelong Hospital helipad and to facilitate safe emergency medical service helicopter flight operations.

Triggers a permit requirement to construct a building or to construct or carry out works with a constructed height more than 25.0 metres above ground level.

LANDFILL GAS AND DEVELOPMENT NEAR LANDFILLS

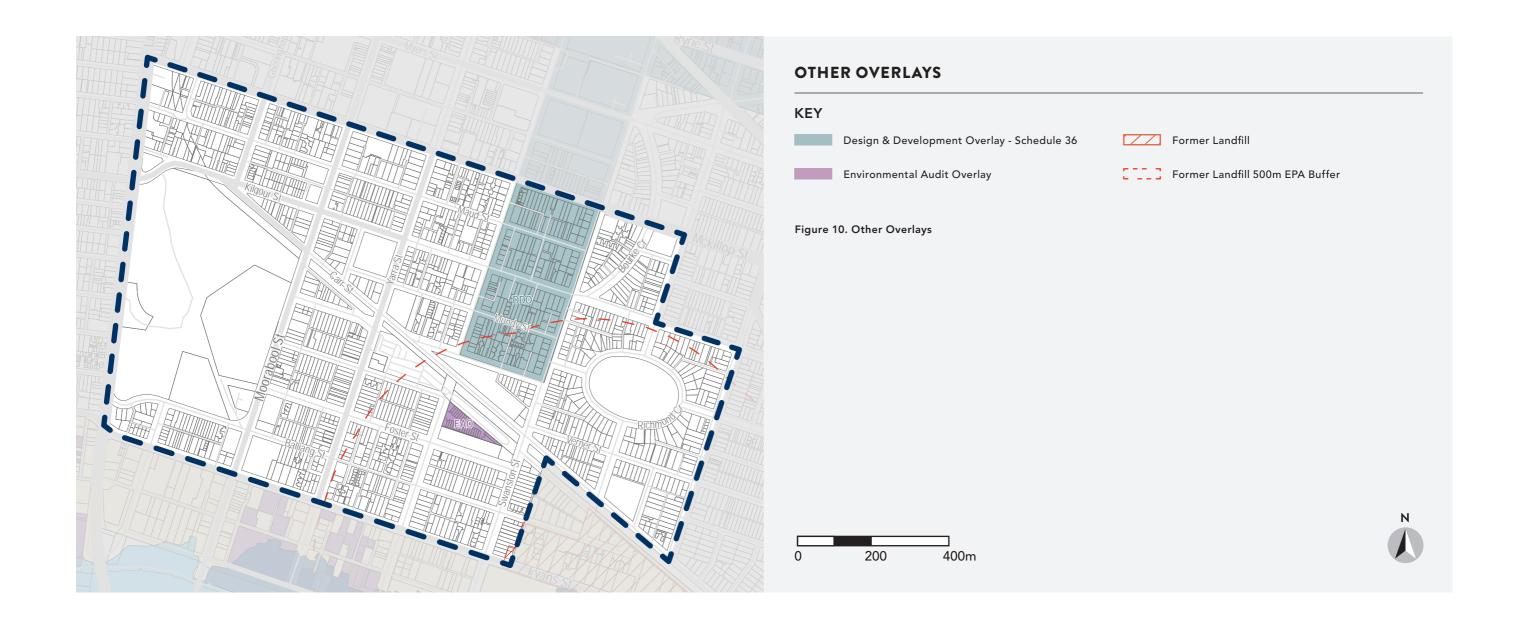
Environment Protection Authority Victoria (EPA) regulates landfills to ensure compliance with the Environment Protection Act 1970 and its subordinate legislation, including the Waste Management Policy (Siting, Design and Management of Landfills) (the Landfill WMP). EPA's purpose in regulating landfills is to protect the environment and surrounding community.

Buffers separate landfills and 'sensitive land uses'. Landfill buffers are used to manage the risk of:

- landfill gas from operating and closed landfills.
- odour impacts from operating landfills.

Outside of the study area but within South Geelong exists a closed landfill and a 500 metre landfill buffer distance applies. Development within the landfill buffer requires:

- 01. An environmental audit be conducted under section 53V of the Environment Protection Act 1970 (section 53V Audit) that assesses the risk of harm to the proposed development or amendment area from the landfill; or
- 02. Using relevant information, where sufficient, from a previous assessment or audit (available on the EPA website).





A WIDER STATEGIC FRAMEWORK

As government-led plans to revitalise Central Geelong continue to bring significant opportunities for investment and growth, the City must also plan for the future of its inner city urban areas, to create a network of walkable compact neighbourhoods.

The City acknowledges the need to continue to invest in its streets, transforming them into a safe, inclusive, and attractive part of the public realm. Unlocking their potential to become people-oriented 'green' streets is key to building a more sustainable and liveable future for our existing and future communities.

WIDER STRATEGIC FRAMEWORK PLAN

KEY



South Geelong UDF study area boundary



The structure of 'urban' Geelong consists of a central city surrounded by established residential neighbourhoods with local activity centres ranging in size from small shopping strips to iconic specialised retail centres.



Latrobe Terrace, McKillop Street and the railway corridor are significant barriers for people-friendly movement.



A key vision for revitalising Central Geelong is to create a 'City in a Park'. Creating a green people-friendly environment with activated streets which connect public spaces.

Figure 11. Wider strategic framework plan



CONSULTATION

In July and August 2019, the City organised externally-facilitated South Geelong Station UDF community workshops - 110 community members took part. This gave residents an opportunity to highlight what the community values about the area; what's working well and not working so well and what the area should look like and be like in the future.

Alongside the workshops, 376 community members provided their feedback through an online survey.

The following table highlights the key community and stakeholder strategic outcomes expressed in the consultation.







Table 1: Summary of community consultation future directions and strategic outcomes

FUTURE DIRECTION	STRATEGIC OUTCOMES
Access and Connections	 Easy universal access connections within the neighbourhood and to the central business district, riverfront, hospitals, rail trail, surrounding coast and hinterland.
	 Easy and safe to move around with clear signage, way-finding and lighting including clever and creative pedestrian crossing lighting.
	 Comprehensive walking and cycling network.
	 Safe area where people come first.
	 Well managed and safe traffic intersections.
	Clever and creative public transport options.
Social	Clever and creative responses to changing social infrastructure needs.
	 Maximised use of existing social infrastructure which meets needs.
	Open spaces for people and pets.
Development and housing	 The definitions, implications and decision-making processes in approving housing developments are understood and inclusive.
	 Developments reference the 'character and identity' of the area and provide the future heritage.
	 Mixed use development with housing options, retail and open, urban spaces.
Traffic and Parking	Traffic moves through the neighbourhood slowly and safely.
	 Available parking for the cars and bicycles of commuters.
Character and identity	Leafy, evergreen trees define our streets.
	 An active and healthy community.
	 A connected and engaged community.
	 Community gardens and orchards are part of neighbourly interactions.
	 Developments reference the character of the areas to create the community's future heritage.
Businesses	People living and working locally.
	 Vibrant shopping, cafés and nightlife.

The analysis is based on four broad subject areas:

Local character and development – including landscape setting, building form and scale, heritage elements, key activities and public spaces.

Movement and Access – including traffic and pedestrian circulation, parking, safety and linkages between activities.

Activities - including land use economic development, recreation and social and community activities.

Environment - including public streetscapes and built form.

The analysis work has incorporated field work, heritage character assessment, policy analysis, community feedback. From this foundation a set of design principles have been formulated to guide the development. These principles underpin the Vision and proposed improvement actions for the area.

LOCAL CHARACTER AND DEVELOPMENT

South Geelong is characterised by a grid layout of wide streets, with the exception of the later east extension providing a dynamic curved streets of Bourke and Richmond Crescent.

Punctuating the grid layout is the Geelong to Warrnambool Railway line which extends on a diagonal access from the west end of Kilgour Street to the south end of Garden Street.

South Geelong's gentle sloping topography and regular grid layout provides largely uninterrupted views between the northern and southern parts of the study area.

Most dwellings within the study area are single storey, detached, hipped/gabled, and constructed of corrugated sheet metal roof cladding and timber weatherboard wall cladding.

Heritage dwellings in the study area largely comprise of a small number of stylistic types: Early Victorian, Victorian, Edwardian/ Federation, interwar and post war.

The football stadium and light towers are a major landmark in the southern central part of Geelong and Moorabool Street Precinct.

Other landmarks that contribute to the character of the area include: Austin Homes, South Geelong Primary School, Former South Geelong United Church Complex, Former Jewish Synagogue, Elephant and Castle Hotel, Former Geelong Grammar School, Former Gordon Junior Technical School and Palais Dance Hall along with early hotels, commercial buildings and corner stores.

DESIGN PRINCIPLE: TO PROTECT AND ENHANCE LOCAL CHARACTER

The existing character of South Geelong should be protected and improved where appropriate. The land use types, style of built form, heritage values, extent of development, landscape setting and public realm experience all contribute to the character of the locality.











MOVEMENT AND ACCESS

Central to South Geelong is the train station and at-grade commuter car parking. The car parking is rudimentary in appearance and difficult for pedestrians and cyclists to navigate. The train station predominantly functions as a park and ride station which results in parking pressures around the station and in local streets.

Road spaces are generally characterised by wide expanses of bitumen, which encourage high vehicular speeds and make pedestrian crossing difficult. Angle parking with no landscaping also dominates most streetscapes.

There are substantial opportunities for public realm improvements to reduce vehicular speeds, improve conditions for cyclists and provide safe pedestrian crossing points.

DESIGN PRINCIPLE: TO IMPROVE UNIVERSAL ACCESS

Accessibility should be inclusive to all and walkable to allow safe and enjoyable pedestrian movement. A sense of arrival, effective circulation and wayfinding are important features.

ENVIRONMENT

Residential streets throughout the study area mostly feature Brush Box planting. Road reserves could be improved with landscaping, using indigenous vegetation. There is also valuable vegetation within public spaces such as Richmond Park which should be maintained and improved.

DESIGN PRINCIPLE: TO ENCOURAGE BEST PRACTICE ENVIRONMENTALLY SENSITIVE DESIGN

Ensure that the future urban design framework supports; energy efficient building design, water sensitive urban design in streets and public parks, minimal water use and maximising water reuse and supporting schemes such as car sharing.





ACTIVITIES

South Geelong has access to corner shop style cafes, schools, open space and the train station. It is within walking distance to the Geelong City Centre, Barwon Health Hospital, Barwon River, Rail trail and coast.

Richmond Park functions as an important outdoor community space, with opportunity for further enhancement.

Kardinia Park is also an important facility which supports regional sporting and events.

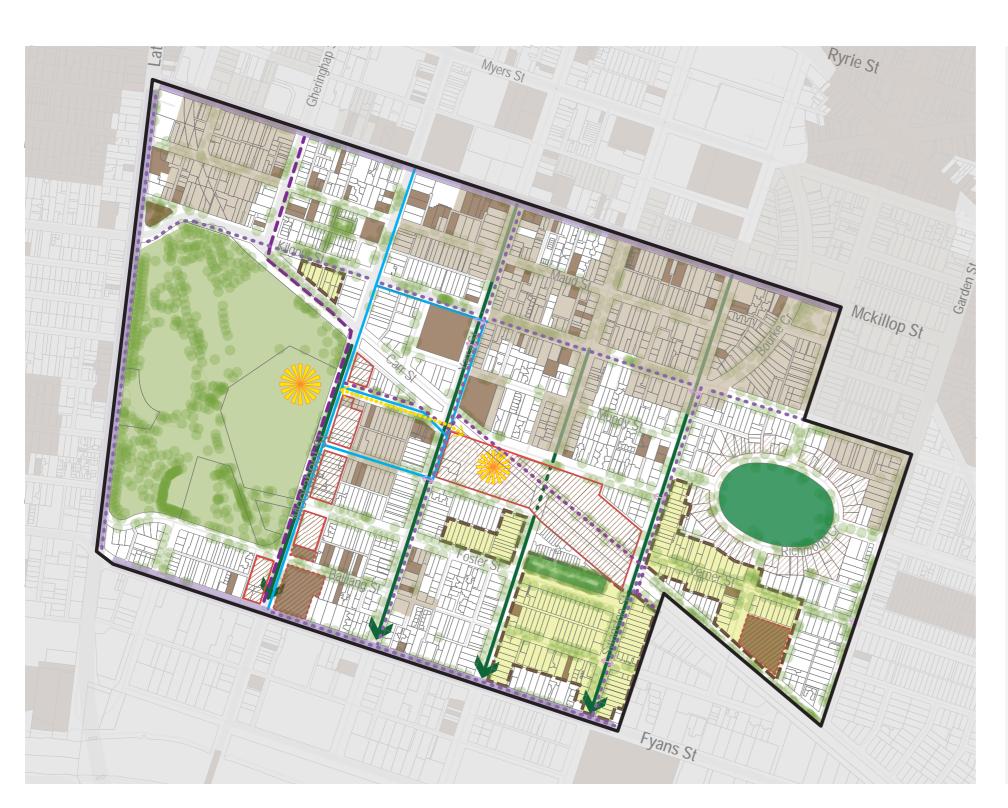
Moorabool Street is a commercial precinct which features office and restricted retail uses. The built form has a predominantly large footprint and is between one to two storeys with variable front setbacks. The public realm is dominated by vehicular movement, features inconsistent paving treatments, large vehicle crossovers, little to no weather protection for pedestrians and limited street tree planting.

DESIGN PRINCIPLE: PROTECT AND ENHANCE LOCAL CHARACTER

The existing character of South Geelong should be protected and improved where appropriate. The land use types, style of built form, heritage values, extent of development, landscape setting and public realm experience all contribute to the character of the locality.







URBAN DESIGN ANALYSIS PLAN



The strategic direction for South Geelong embodies the General Design Principles and reflects the analysis presented.

The proposed vision for South Geelong addresses the significant issues identified during the analysis and consultation process and builds on the key opportunities for enhancing the special qualities of South Geelong.

Objectives for the area support existing policy context and reflect community issues.

The concept plans for key development areas provide a design response to some of the objectives.

VISION

South Geelong will continue to have a strong residential community with a character of green, tree lined streets and open spaces.

It will have attractive destinations which promote community interaction and are linked by safe and pleasant pathways.

Development will remain modest in scale within heritage areas, where there is opportunity for larger developments, consideration should be given to existing heritage buildings, streetscapes and open spaces.

KEY OBJECTIVES AND STRATEGIES

WALKABILITY/ ACTIVE TRANSPORT

OBJECTIVE:

Improve pedestrian and cycling circulation and safety

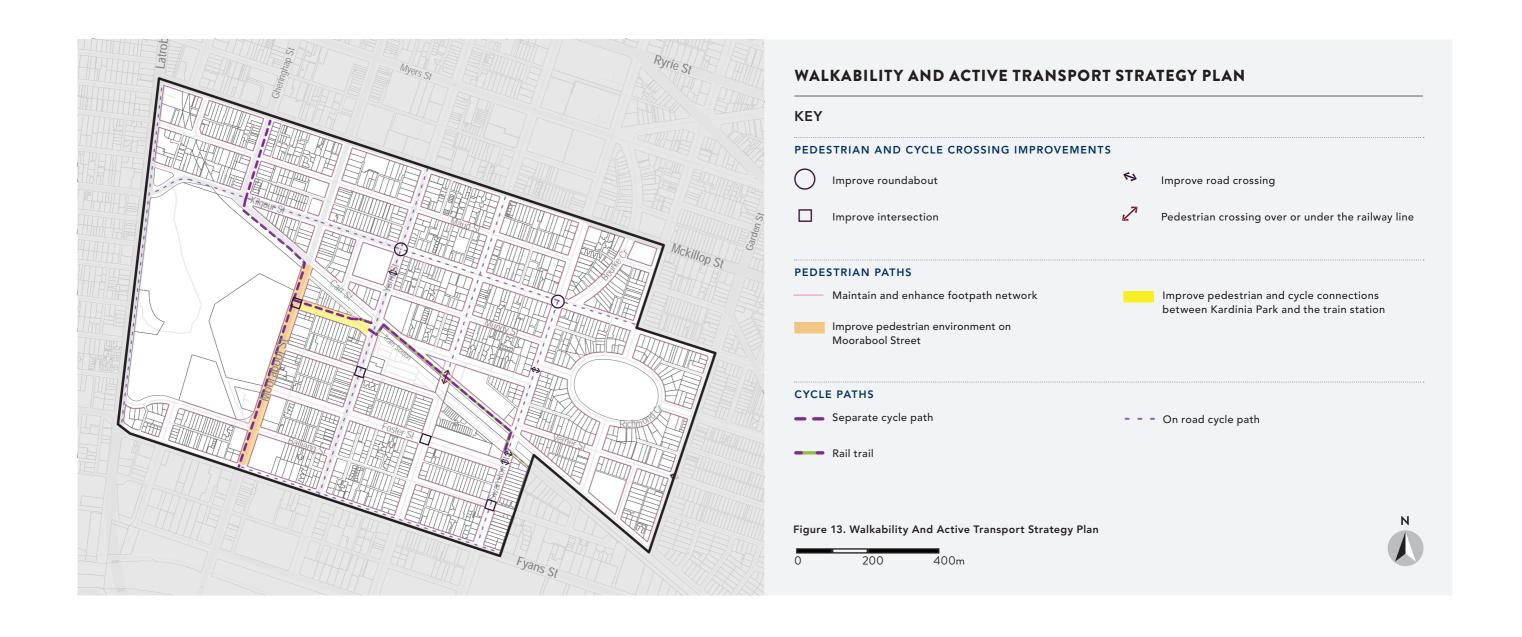
STRATEGIES

Short Term:

- Create a distinctive 'starting point' for the Rail Trail at the Station with good end of trip facilities and cycle infrastructure.
- Provide a pedestrian crossing over the railway line at Bellerine Street as part of a Station renewal project.
- Provide a signalised pedestrian/ cycle crossing across Moorabool Street at the Londsdale Street intersection.
- Improve pedestrian connections from the Train Station to Kardinia Park via Lonsdale Street.
- Improve pedestrian crossings to Geelong South Primary School, particularly across Yarra Street.
- Improve pedestrian crossing at Yarra and Verner Street intersection.
- Improve pedestrian crossings at roundabouts on Kilgour/ Yarra and Kilgour/ Swanston.
- Improve pedestrian crossing of Swanston Street and Balliang Street intersections.

Long Term:

 Improve pedestrian crossings generally throughout South Geelong precinct by providing central medians or extending the footpath/ verge at intersections, as part of a possible suite of public realm streetscape improvements.



VEHICULAR ACCESS AND CAR PARKING

OBJECTIVE:

To provide a safe environment for pedestrians and to minimise the visual impact of car parking area

STRATEGIES

Short Term:

- Where possible provide street trees and shade to car parking spaces.
- Provide safe and convenient footpaths connecting parking spaces to the Station building and platforms.

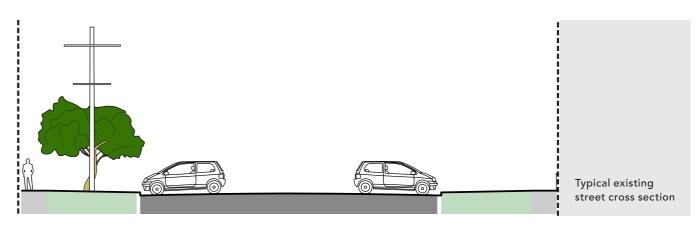
Long Term:

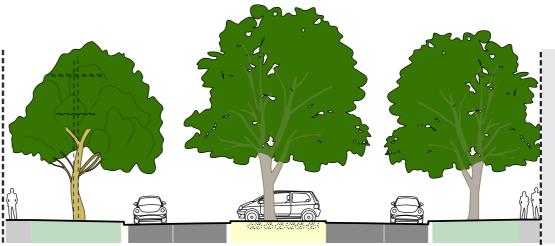
- Limit all day car parking in residential streets.
- In the long term, a small number of car parking spaces will be removed to accommodate additional planting, walking and cycling safety improvements and shared car spaces.

On street car parking	Number of car parks
Existing	3420
Medium term proposal	3420 (no change)
Long term proposal for street upgrades (planted medians)	3200 (change of 6.5%)

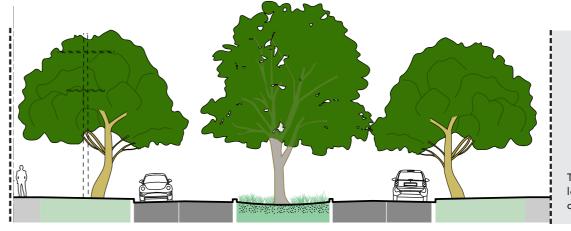
Note: Department of Transport have identified a potential 300 additional car parking spaces at the South Geelong Train Station may be required in the long term future.

TYPICAL STREET CROSS SECTIONS





Typical proposed medium term street cross section



Typical proposed long term street cross section

Figure 14. Typical street cross sections



CAR PARKING STRATEGY PLAN

KEY

Parallel parking to road edges with planted central median.

Parallel parking to road edges with 90 centre road parking interspersed with tree planting (staged removal of carparking and instatement of a planted central median).

90 centre road parking interspersed with tree planting. (staged removal of some carparking and instatement of a planted central).

Cycle lanes to road edges.

Parallel parking to road edges.

Combination of parallel and angled parking to road edges (staged removal of angle parking and replacement with parallel parking and landscape improvements recommended on Foster and Verner St).

90 degree parking to road edges, interspersed with tree planting (lower section of Fitrzoy St only).

Decked commuter carpark.

Figure 15. Car Parking Strategy Plan





PUBLIC REALM AND STREETSCAPE

OBJECTIVE:

Preserve the 19th century heritage of ordered and finely interwovern framework of green streets and other spaces to maintain a safe, civilised and healthy urban enviornment conducive to walking and cycling as the primary mode of travel.

STRATEGIES

Short Term:

- Protect and retain healthy street trees. Street trees not only offer inherent beauty but protect buildings, street surfaces with shade from the sun and protection from the wind.
- Provide new street tree planting in streets to reduce the heat island effect and absorb carbon dioxide.
- Improve soil moisture and water quality by introducing water sensitive urban design solutions where possible.
- Built form adjoining public spaces must activate the space and provide passive surveillance of the space.
- CPTED principles must be achieved inlcuding ecouraging passive surveillance, effective lighting and management of public areas.
- Wayfinding signage should be provided, particularily supporting the Rail Trail.

Long Term:

• Remove centre road carparking and introduce vegetated central medians, include a mix of vegetation to enhance urban ecology and biodiversity.

Street trees and permeable planted surface	Number/ area
Existing street trees	1400
Proposed street tree planting	470 trees (net gain 134%)
Existing bitumen road pavement	238,000sq m
Existing planted median	13,000sq m
Proposed planted median	16,900sq m (7.1% reduction in road pavement and introcution of permeable planted surface)
Proposed long term planted median	2,500sq m (further 1.1% reduction in road pavement and introcution of permeable planted surface)



PUBLIC REALM AND STREETSCAPE STRATEGY PLAN

KEY

STREETSCAPE

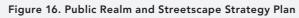
- Provide large canopy tree planting in a new central median (consider water sensitive urban design treatments where possible).
- Maintain and enhance vegetation in existing central medians.

Provide large canopy tree planting within 90 degree centre road parking. (Staged removal of car parking over time and introduction of vegetated medians).

PUBLIC PARKS

- Maintain and enhance existing public parks as a series of gardens and formal squares.
- ||||||| Kardinia Park master plan currently underway.
- Provide a new public plaza which connects

 Bellerine Street with the proposed train station
 pedestrian overpass.
- Investigate the opportunity of new public plazas associated with heritage buildings in Moorabool Street.







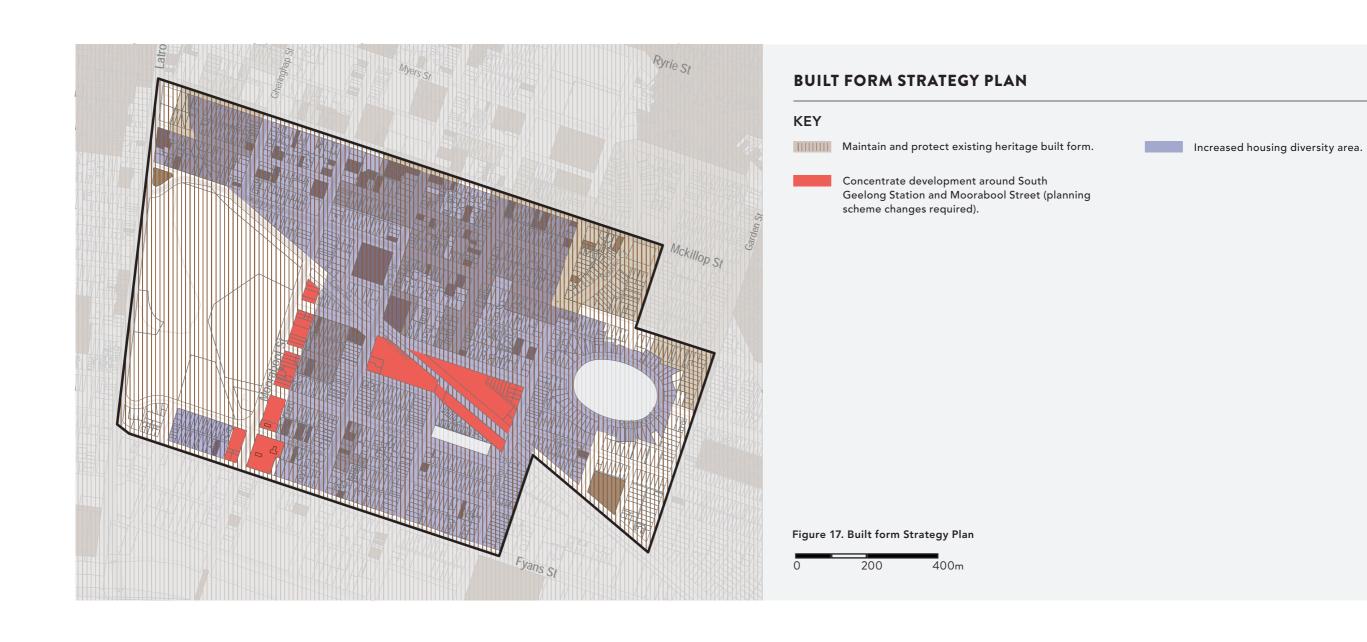
PROMOTE A DIVERSITY OF BUILT FORM AND HIGH QUALITY URBAN ENIVRONMENTS

OBJECTIVE:

Maintain the existing heritage builtform while providing opportunities for refurbishment, adaptive re-use and new buildings to provide a mixture of building types, including different typologies, tenures and adaptable and affordable housing.

STRATEGIES

- Maintain and protect existing heritage built form.
- Redevelopment of the 'Big Shed' (current permit for a medium density development).
- Expand the IHDA to (approximate) 800m.
- Direct significant housing change to Moorabool Street, the Barwon Water Site and Station Precinct by nominating as Key Development Areas.



The analysis and consultation processes have generated specific areas to become the subjects of design studies as part of the UDF. Two development opportunity areas have been identified for further investigation:

- 01. South Geelong Station Hub
- 02. Moorabool Street

SOUTH GEELONG STATION HUB

This key development area includes the railway station and its car parking areas, along with the former Barwon Water operations site and some private landholdings which interface these sites.

This section includes recommendations regarding adjacent and surrounding streets including Bellerine, Carr, Lonsdale, Verner and Yarra Streets.

The South Geelong railway station is a major transport node travelling to and from Melbourne, as well as for visitors attending sporting events at Kardinia Park. It has extensive commuter car parking and is also serviced by a major bus route within Geelong.

The former Barwon Water operations site is a vacant 1.16 ha land parcel with frontage to both Lonsdale and Carr Streets. It is less than 200 metres from the railway station.

OPPORTUNITIES

Proposed rail upgrades between South Geelong and Waurn Ponds and the recently closed and vacated Barwon Water site provide an excellent opportunity for a coordinated transit-oriented development. This would include land currently owned by Barwon Water, Vic Track and the City of Greater Geelong, along with some private land holdings.

Close proximity to the railway station allows for residential, commercial and other land uses to capitalise on and benefit from excellent access by public transport. It is also less than 1km from central Geelong makes it particularly suitable for the provision of social housing as a component of new development.

Physical improvements in and nearby the South Geelong Station Hub can provide better pedestrian access between the railway station and Kardinia Park. Better access would encourage spectators to potential sports events to utilise public transport.

Its location also allows for improved pedestrian and cyclist connection to the Bellerine Rail Trail. The activities generated at the start and end point of journeys on that trail will contribute in activating the South Geelong Station hub.

An Increased Housing Diversity Area has been identified within 800 metres walking distance of the station. Its proximity to the station provides opportunity for residential intensification to higher density that will have excellent accessibility by public transport.

CHALLENGES

The railway line is a physical barrier to movement through the area. There is no pedestrian crossing of the railway line between Yarra and Swanston Streets.

A desire for safe universal pedestrian and cycling access has been identified as a key issue through public consultation.

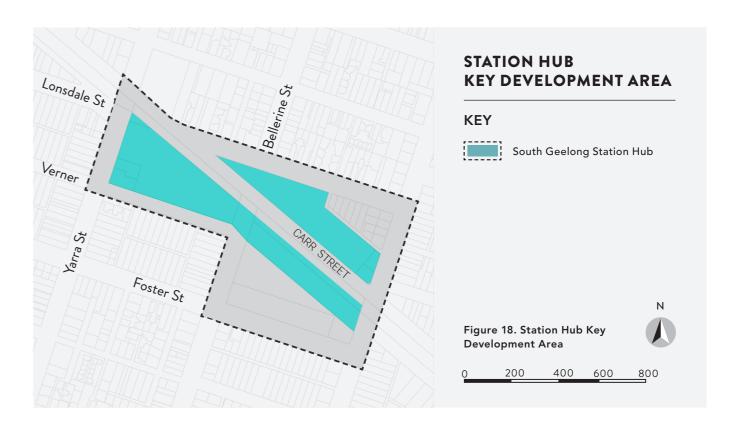
A universal access audit undertaken for Council by Galbraith Scott within the South Geelong UDF study area recommended a range of actions to achieve appropriate standards, particularly for people with limited mobility or vision impairment. These include:

- additional safe crossing points such as pedestrian refuges on wide key pedestrian streets;
- improved street lighting; and
- upgraded access across the railway line to be wheelchair accessible.

The heritage study undertaken by Authentic Heritage Services recommended reinstatement of a pedestrian bridge over the railway line at Bellerine St.

Development needs to ensure safe and functional vehicular access to the railway station and associated car parking.

There is high demand for existing commuter and on-street car parking spaces.



IMPROVEMENTS AND CHANGES

Improvements to pedestrian access throughout the precinct should provide for safe and easy movement, including improved street crossings and a new crossing of the railway line in the vicinity of Bellerine Street.

Intersection improvements should facilitate safer movement for vehicles, cyclists and pedestrians.

Land use intensification to provide higher density residential development and commercial uses, particularly adjacent to the station, will capitalise on proximity to the station and provide a vibrant, activated mixed use environment.

Community, retail and small-scale commercial uses within the redevelopment will serve new residents and the surrounding neighbourhoods.

Railway station car parking should be consolidated within a multi-level car parking facility to free up areas of on-street and off-street car parking for access and streetscape improvements as well as for new development in the long term.

Development within the South Geelong Station Hub will be generally consistent with a concept plans set out in the UDF. The ultimate form of development will be informed by development feasibility as well as another phase of design refinement, consultation through a planning scheme amendment and documentation before it is implemented. Two options have been included in the concept plan to test scenarios with the community and stakeholders.

STATION HUB OBJECTIVES:

The objectives of this development plan are to ensure:

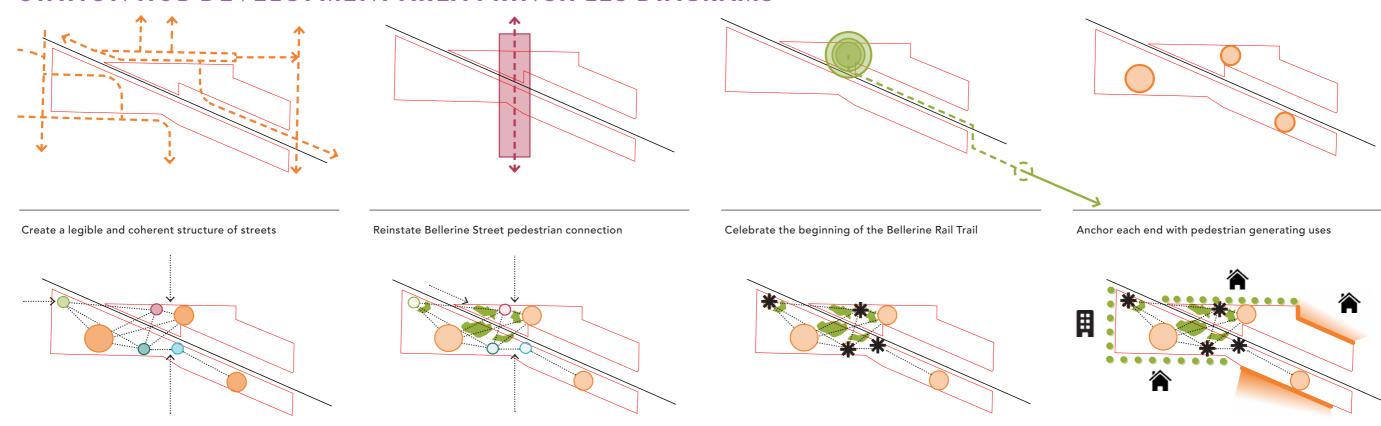
- That the future redevelopment of the Station area will result in a model example of ecologically sustainable urban renewal;
- The development of a diverse and high quality residential and mixed-use precinct;
- That the site consists of high-quality landscaped public plaza spaces;
- That the heritage palm trees are conserved;
- That a pedestrian railway crossing is provided;
- That new buildings respond to their context in order minimise their impact on the amenity of neighbouring dwellings and urban character of the surrounding area;
- The street network provides attractive tree-lined streets and a pedestrian and bicycle priority access network with significant water sensitive urban design elements;
- That the built form, layout and street network encourages and promotes the use of public transport;
- The staging of the redevelopment of the precinct will ensure that car parking supply is managed overtime.

DESIGN PRINCIPLES:

The redevelopment of the station precinct is to be in accordance with the following principles:

- Create new station forecourts/ public squares which are connected across the railway by a pedestrian overpass.
- Provide a legible and coherent structure of streets that complement the existing, adjacent street
 network and responds to key pedestrian and bicycle desire lines (principally from the Rail Trail
 and Bellerine Street), universal access considerations, stormwater management requirements and
 crime prevention through environmental design principles.
- A new 'mini main street' will be carefully designed and landscaped to create high quality pedestrian and cycle priority streetscapes and very low vehicular traffic speeds.
- Access to the Station and bus stops will be enhanced.
- A community hub will be created within the station precinct supporting a range of uses that will serve the new and surrounding neighbourhoods, including community, retail and small-scale commercial uses.
- The development will provide for a diverse population through an appropriate mix of dwelling types including accessible, adaptable and affordable housing.
- The buildings located on the corner of Bellerine St/ Lonsdale St and Yarra St/ Lonsdale Street are to be of the highest architectural quality as they form key view points and assist in orientating the Station.
- The style of the remaining architecture on the site should be generally visually recessive and of high-quality construction. A variety of building heights and forms should be achieved with a maximum of 10 storeys. Buildings above 4 storeys in height should be designed to minimise the visual impact of the upper levels. This could be achieved through upper level setbacks, dark recessive colours and material and minimising the visibility of roof forms and associated plant structures, lift overruns and the like.
- Development at the eastern edge, towards Swanston Street, should be predominantly lower in scale and be of maisonette and townhouse typologies.
- The development's urban structure will extend public domain view corridors from streets into and through the site.

STATION HUB DEVELOPMENT AREA PRINCIPLES DIAGRAMS



Mix of uses scattered across the site to generate foot traffic

Figure 19. Station Hub development area principles diagrams

Local civic or public spaces at the major intersections of foot traffic

Create landmark forms at key points

Integrate the edge conditions to surrounds



CONCEPT PLANS

The concept plans aim to provide a vision for how the station hub development area may be developed over the time period of the study. The plan is a conceptual design proposal which will require economic testing, as well as another phase of design refinement, consultation and documentation before it is implemented.

Two options have been prepared to test scenarios with the community and stakeholders.

KEY MOVES

PUBLIC PLAZA AXIS

Two new landscaped public plazas will be located on the axis of Bellerine Street which will form the heart of the precinct. The plazas will become important locations to cross the railway line and access the station.

Active edges will frame the plaza spaces and provide opportunities for outdoor dining and informal gathering.

The northern plaza will be the start/end point for the Rail Trail with directional signage and end of trip facilities.

STATION ARCADE BRIDGE

An architecturally designed, combined pedestrian and station arcade bridge is proposed to connect the two plazas.

RAIL PLATFORMS

The bridge will connect with rail platforms on the north and south of the railway lines.

RECONFIGURATION OF CARR STREET

Carr Street is proposed to be reconfigured to accommodate the new northern rail platform and provide opportunity for a pedestrian and cyclist priority forecourt space. Carr Street will be rerouted through the centre of the Barwon Water site.

Note: An assessment of rail noise will need to be undertaken in line with Department of Transport Passenger Rail Infrastructure Noise Policy. Noise attenuation at the source is preferable if possible.

MULTI-DECKED CARPARK

A multi decked car park is proposed on the southernmost portion of the commuter car park site. This will accommodate the current car parking requirements within two levels, with potential to add another level if required. The carpark will share lifts with the Station Bridge Arcade.

YARRA STREET

Bus stops will be relocated to Yarra street with a raised signalised crossing to allow safe pedestrian connection to the Station and surrounding neighbourhood.

An intersection upgrade is proposed on the corner of Verner and Yarra Street to improve both pedestrian and vehicles crossings.

MINI MAIN STREET

This new street will be a slow speed pedestrian priority street with taxi and 'kiss and ride' facilities.

PROPOSED LAND USES

BARWON WATER DEVELOPMENT

The Barwon Water site could be developed for a variety of uses including residential, health and wellbeing, commercial and retail.

STATION CARPARK DEVELOPMENT

Consolidation of the car parking allows opportunity for re-development of the remainder of the site. A mixed-use development is proposed with non-residential uses addressing a new 'mini main street', Yarra Street, and Verner St.

A small-scale supermarket could be accommodated on the ground floor, which is sleeved in smaller scale retail/ commercial development.

A combination of office and residential uses are proposed on the upper levels.

CHILDCARE REDEVELOPMENT

The Childcare has been shown on the first floor of the development. While it would be preferable for the Childcare to be incorporated in a redevelopment as shown the plan, the Childcare could remain in its current configuration until funds become available.



CONCEPT PLAN STATION HUB PRECINCT OPTION 1.

KEY

- 1 RESIDENTIAL (APARTMENTS)
- 2 RESIDENTIAL (TOWNHOUSE/ MAISONETTE)
- 3 COMMERICAL
- 4 RETAIL (RESIDENTIAL ABOVE)
- 5 FIRST FLOOR CHILDCARE
- 6 CAFE/ RESTAURANT
- 7 HEALTH/ WELLBING (RESIDNETIAL ABOVE)
- 8 MEDICAL/ MIXED USE (RESIDENTIAL ABOVE)
- 9 MIXED USE (COMMERCIAL AND RESIDENTIAL
- GROCER AND LOADING (GARDEN ABOVE)

Figure 20. Concept Plan Station Hub Precinct Option 1.

40 80m



OPTION 1 BUILT FORM AND BUILDING HEIGHTS

Medium to high rise development is considered appropriate in order to introduce new housing and building typologies into South Geelong and make best use of this unique location adjacent to public transport.

BARWON WATER SITE

The development on western edge of the plaza (corner of Bellerine St and Carr St) is proposed to be a landmark podium building of up to 10 storeys.

Development will generally reduce in height as you move east through the site. Development is proposed to be up to 6 storeys on the remainder of the Lonsdale Street frontage and Carr Street frontages.

Development which addresses Swanston Street and the existing lane should be lower in scale - up to 3 storeys - and be of maisonette and townhouse typologies to minimise impact on existing residents.

STATION REDEVELOPMENT SITE

The proposed commercial building on the corner of Yarra St and the train line could be up to 4 storeys. This prominent development should be of high-quality architectural design. The building may include architectural roof features that protrude above the normal roof line and increased parapet heights.

The commercial building on the corner of Bellerine and Verner Street could be of a similar scale, up to 4 storeys.

All other development on Verner Street would be up to 7 storeys with upper level setbacks, as shown on the cross section A-A, to minimise overshadowing and visual impacts of the development when viewed from Verner St.

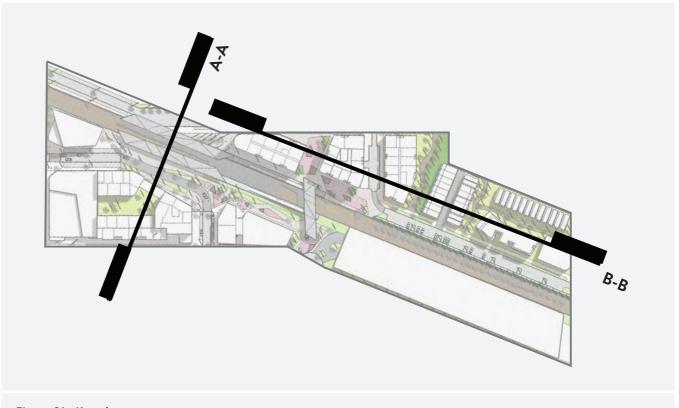


Figure 21. Key plan

OPTION 1 BUILT FORM AND BUILDING HEIGHTS

CROSS SECTION A-A (OPTION 1)

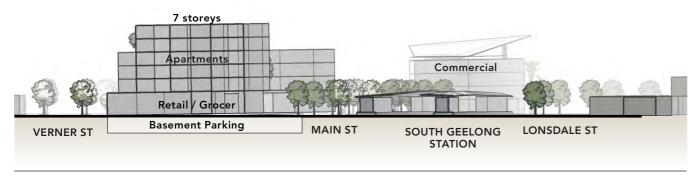


Figure 22. Cross Section A-A (Option 1)

LONG SECTION B-B (OPTION 1)

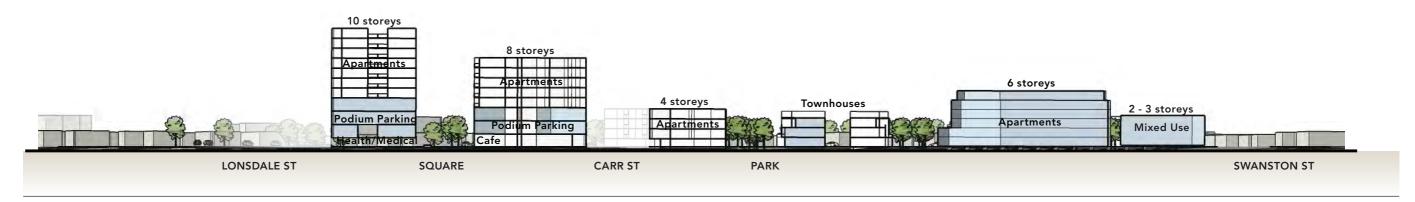


Figure 23. Long Section B-B (Option 1)





OPTION TWO - ALTERNATE DEVELOPMENT OPTION ON THE BARWON WATER SITE

OPTION 2 BUILT FORM

This option explores an alternative layout of development blocks and buildings for the Barwon Water site.

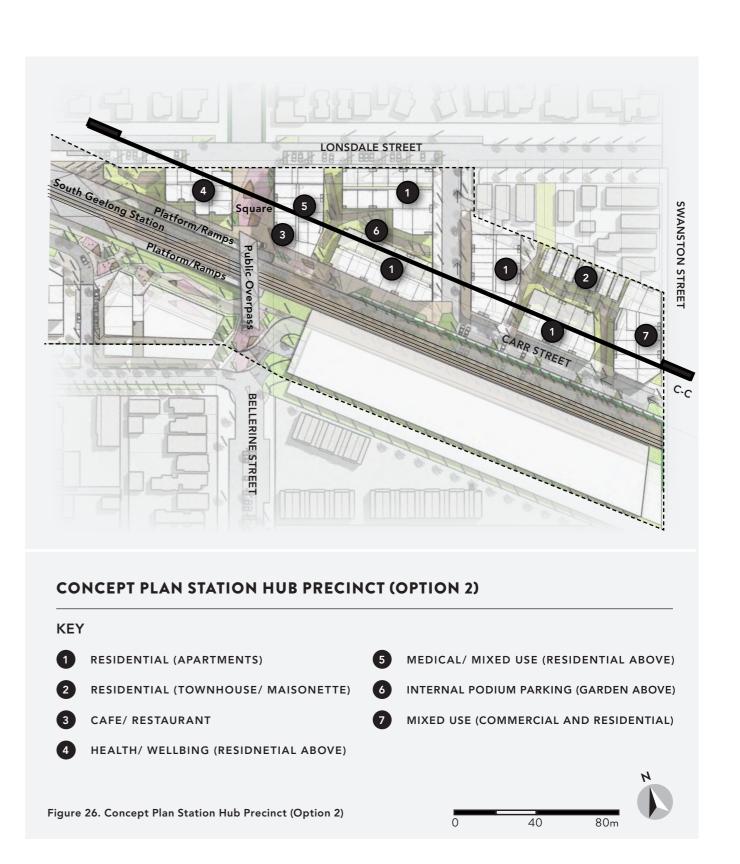
Development is proposed to address the street to form perimeter blocks with central courtyard spaces.

It results in a lower overall building height of maximum 6-7 storeys. The mix of uses would be similar.

OPTION 2 ACCESS AND MOVEMENT

The perimeter block pattern focuses active edges and pedestrian access and movement on public streets, the public square and park on the corner of Lonsdale and Carr Street.

The Rail Trail, starting point and provision of end of trip facilities in a public square is similar in both options. As are proposed vehicle movements.



OPTION TWO - ALTERNATE DEVELOPMENT OPTION ON THE BARWON WATER SITE

LONG SECTION C-C (OPTION 2)



Figure 27. Long Section C-C (Option 2)



SUMMARY OF KEY DIFFERENCES BETWEEN DEVELOPMENT OPTIONS ON THE BARWON WATER SITE

	KEY DIFFERENCES BETWEEN PROPOSED BARWON WATER SITE DEVELOPMENT - OPTION 1	KEY DIFFERENCES BETWEEN PROPOSED BARWON WATER SITE DEVELOPMENT - OPTION 2
BUILT FORM		
Block and street pattern Setbacks on boundaries/ street frontages	Option 1 shows a street and block pattern of buildings which address public and private open spaces. This creates potential for multiple pedestrian connections through the site from Lonsdale Street to Carr Street and the Station.	Option 2 features a different block pattern of buildings with 0m setbacks to street boundaries, which form perimeter blocks. The perimeter block pattern focuses active edges and pedestrian access and movement on public streets. This is arguably more in keeping with the development pattern of Geelong.
Building height	The 10 storey building proposed on the corner of Lonsdale and Carr Street is somewhat out of character to the surrounding residential neighbourhood. However, given the proximity to the Station and future character of the train station precinct, intensification may be more desirable in the future.	Option 2 proposes a lower scale of development, up to 6 storeys, which is arguably more in keeping with the character of the area. Note: further economic testing is required on the viability of the proposed building types.
View lines	Views through the 'Mini Main Street' will terminate on a landmark, 10 storey building.	A 6 storey building at the termination of the view would be less prominent.
	Geelong's grid layout does not generally include view lines terminating on buildings. While this is out of context for Geelong, it may be appropriate to help locate the Station building.	
PUBLIC SPACES/ LAN	DSCAPE FEATURES	
	Option 1 shows a series of small landscaped parks which provide amenity for future residents. These may be fenced or provide pedestrian links through the site to the station.	Option 2 shows a park on the corner of Lonsdale and Carr Street which is more obviously public and provides good north facing amenity for users.
		Option 2 shows proposed courtyards developed on podium parking, which would result in central private courtyards. Deep soil planting would not be possible.
SOCIAL IMPACT		
Affordable and social housing	Given the greater development yield in Option 1, there may be more opportunities for affordable and social housing.	There may be reduced opportunities for affordable and social housing.
Community services and facilities	The increased development provides more opportunities for services and facilities due to the higher number of people living in the precinct.	There may be reduced opportunities for services and facilities due to fewer people living in the precinct.
Safety	Retail and community facilities as well as upper level residential development which address the streets and public spaces provide 'eyes on the street' to create a safer pedestrian space. Option 1 includes car parking in the podium levels and therefore reduces the 'eyes on the street'.	Option 2 sleeves all car parking with active edges and residential development which increases 'eyes on the street'.

FINAL OPTION

It is anticipated that following consultation a final option will be developed.

This may be a hybrid of option 1 and 2 depending on community and stakeholder preferences.

The final layout of South Geelong Station will also consider passenger and operational needs of the station including pedestrian, cycle and bus connections. These requirements will be factored into the decision on final location on the proposed pedestrian bridge.

A redesign of the location of the station arcade bridge requires a careful rethink of the public squares which interface the bridge. The connection across Bellerine Street is also very important and historically significant, whether it's to be a visual or physical connection it will require careful design consideration.

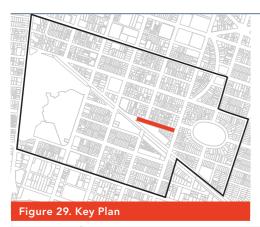
A strong architecturally designed overpass and ramp system, be it on the axis of Bellerine Street or mid-way between Lonsdale and Yarra Streets, is imperative in this important urban precinct.

The City will continue to work with Department of Transport, Rail Projects Victoria and Barwon Water on a preferred outcome following the consultation period.

STATION HUB PUBLIC REALM WORKS

An integrated, staged public realm and streetscape upgrade program is proposed within the Station Hub key development area, which utilises the wide street reserves for biodiversity, pedestrian and cycle benefits.

LONSDALE STREET (EAST)



EXISTING CONDITION:

This section of Lonsdale Street is between Swanston Street and Carr Street.

- Wide asphalt carriageway in good condition.
- Concrete footpaths.
- Brush Box planting to road edges.
- A 30m wide road reservation.

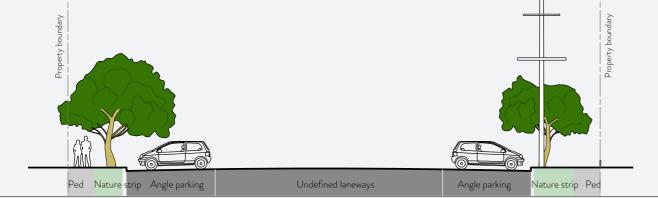


Figure 30. Lonsdale Street (East), existing typical cross section

STRATEGY PLAN:

- Provide parking for residents, short stay shopping and commuters.
- Provide canopy trees.
- Provide space for sitting, resting and meeting on the southern (sunny) side of the street.
- Develop WSUD solutions, especially where they can help support better tree growth.
- Underground power.
- Reduce speed limit to 40 km/hr.

LONSDALE STREET (EAST) PUBLIC REALM VISION:

The northern side of Lonsdale Street will be maintained substantially in its present form using existing pavement, trees and drainage. The south side will be reconstructed to included expanded footpath and nature strip which allows provision for pedestrians, new canopy trees and WSUD treatments. A combination of centre of road and kerb side parking will service both residents and commuters.

Note: Long term staged removal of centre road car parking is proposed. To be replaced with vegetated medians.

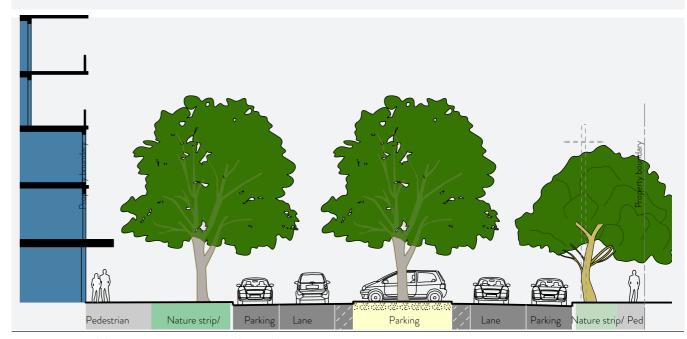


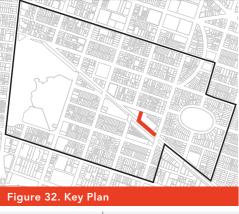
Figure 31. Lonsdale Street (East), proposed typical cross section

MATERIALS:

- Concrete footpaths.
- Trees within parking bays, establised within wide trenches of structural soil.
- Trees within nature strips/ rain gardens.
- Pedestrian lights within footpath zone.

- Brush Box planting maintained and reinforced in northern nature strip.
- Large canopy tree planting within parking zone and nature strips.
 Possible tree selection; Lemon Scented Gum, Spotted Gum or Smooth-barked Apple Myrtle.

CARR STREET



EXISTING CONDITION:

- Wide asphalt carriageway in good condition.
- Concrete shared path.
- Sparing planting with inadequate scale (bottlebrush) on northern road edge.
- Sparing Brush Box planting on the southern road edge.
- A 20m wide road reservation.

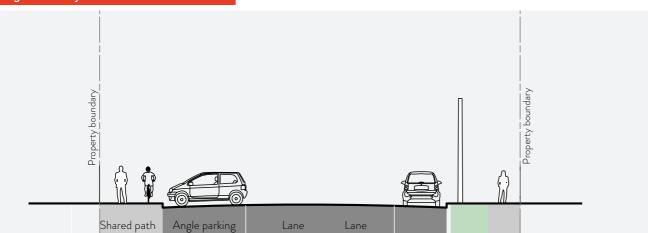


Figure 33. Carr Street, existing typical cross section

STRATEGY PLAN:

- Divert Carr Street through the Barwon Water redevelopment site.
- Close a section of Carr Street to improve pedestrian connections to the station and proposed pedestrian overpass. (Refer figure 20. for further detail)
- Provide for one way traffic and efficient carparking.
- Improve conditions for pedestrian and cyclists.
- Develop a 'starting point' for the Rail Trail with associated infrastructure and end of trip facilities
- Provide large canopy trees within car parking bays.
- Develop WSUD solutions where possible in the road especially where they can support better tree growth.
- Reduce speed limit to 40 km/hr.

CARR ST PUBLIC REALM VISION:

Carr Street will continue to perform its role as a parking street. It will be reconfigured to accommodate 90-degree parking and one-way traffic (entry from Swanston Street).

The northern footpath and nature strip will be expanded to provide opportunities for improved landscape and amenities associated with new residential development.

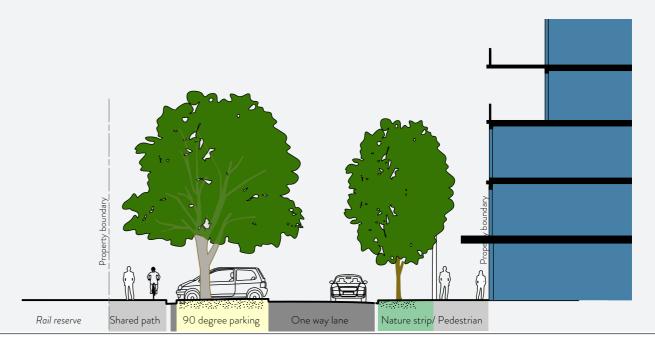


Figure 34. Carr Street, proposed typical cross section

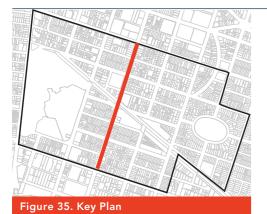
MATERIALS:

- Concrete footpaths.
- Trees within median and parking bays, established within wide trenches of structural soils.
- Pedestrian lights within footpath zone.

TREE SPECIES:

 Large canopy tree planting within parking zone and nature strips.
 TBC Species, including large scale eucalypts.

YARRA STREET



EXISTING CONDITIONS:

- Wide asphalt carriageway in good condition.
- Concrete footpaths in good condition.
- Brush Box on road edges.
- A 30m wide road reservation.

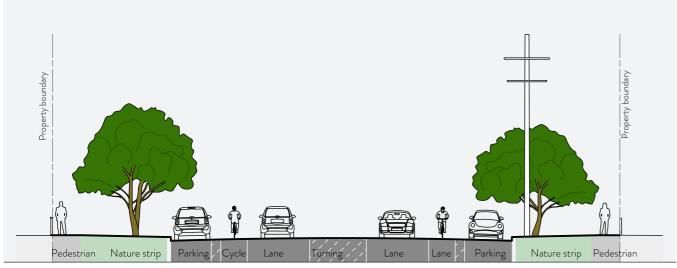


Figure 36. Yarra Street, existing typical cross section

STRATEGY PLAN:

- Provide for pedestrian, bicycles and traffic.
- Provide large canopy trees along both sides of the road and median where possible.
- Develop WSUD solutions where possible in the road and nature strips especially where they can support better tree growth.
- Underground power.

YARRA STREEET PUBLIC REALM VISION:

Yarra Street will be mainted substantially in its present form using existing pavement, trees and drainage.

The central road space will be reconstructed to provide for new canopy trees and water sensitive urban design treatments.

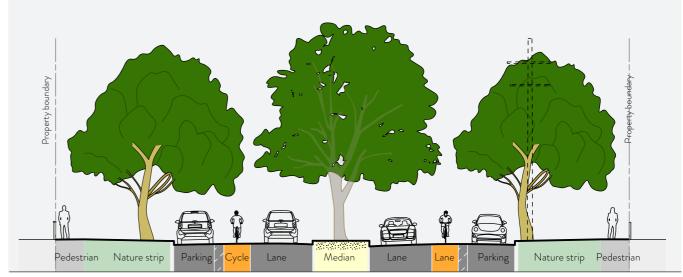


Figure 37. Yarra Street, proposed typical cross section

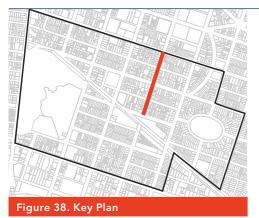
MATERIALS:

- Concrete footpaths.
- Trees within median, establised within wide trenches of structural soil.
- Pedestrian lights within footpath zone.

FOOTPATH TREE SPECIES:

- Brush Box planting on road edges maintained and reinforced.
- Central median species, options include;
 Lemon Scented Gum, Spotted Gum,
 Smooth-barked Apple Myrtle.

BELLERINE STREET NORTH



EXISTING CONDITION:

This section of Bellerine Street is from Lonsdale Street to McKillop Street.

- Wide asphalt carriageway in good condition.
- Concrete footpaths.
- Brush Box on western road edge.
- A 30m wide road reservation.

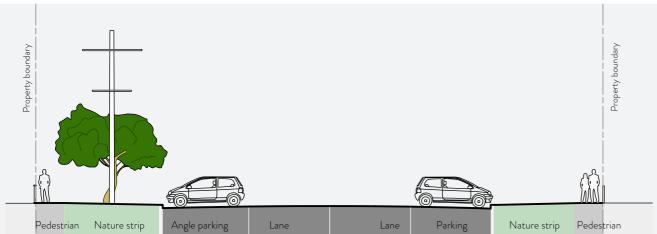


Figure 39. Bellerine Street north, existing typical cross section

STRATEGY PLAN:

- Provide for pedestrian, bicycles, traffic and parking.
- Provide large canopy trees along eastern side of the road and within a central median.
- Staged introduction of vegetated central medians is recommended as we shift away from
 private vehicles in favour of modes such as walking, cycling, street level mass transit, trains and
 shared vehicles. This will require a careful strategy of removal of car parking, generally starting
 furthest away from the train station.
- Develop WSUD solutions where possible in the road and naturestrip especially where they can support better tree growth.
- Undergrounding of power throughout the precinct.
- Reduce speed limit to 40 km/hr.

BELLERINE STREET NORTH PUBLIC REALM VISION:

Bellerine Street will become an important green street which provides interpretation of the historical first street connection between 'north' and 'south' Geelong.

This section of the street will be maintained substantially in its present form using existing pavement, trees and drainage. The roadway will be reconfigured to include separated bike paths, which connect to the Station, Rail Trail and proposed pedestrian crossing over the railway.

The central road space will be reconfigured to provide a vegetated median with new canopy tree planting. Sections of centre median will allow for 90 degree car parking.

Note: Staged removal of car parking over time and introduction of vegetated medians. Some visitor car parking will remain in Bellerine Street in the long term.

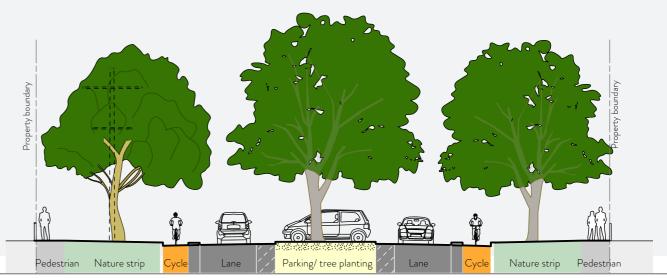


Figure 40. Bellerine Street north, proposed typical cross section

MATERIALS:

- Concrete footpaths.
- Trees within parking bays, establised within wide trenches of structural soil.
- Trees within nature strips/ rain gardens.
- Pedestrian lights within footpath zone.

- Brush Box planting on western road edges maintained and reinforced.
- Central median species, options include;
 Lemon Scented Gum, Spotted Gum,
 Smooth-barked Apple Myrtle).

















STATION HUB STAGING PLAN

The precinct will be developed in stages by different stakeholders as funds become available.

Shown is Option 1. Option 2 would be similarly staged.

STAGING PLAN

KEY

- DEVELOPMENT OF BARWON WATER SITE (EAST), INCLUDING NEW NORTH SOUTH STREET THROUGH BARWON WATER SITE.
- 1B IMPROVEMENTS TO CARR ST (SOUTH OF NEW DEVELOPMENT).
- 2A NEW NORTH PLATFORM POSITIONED TO CONNECT TO A FUTURE STATION ARCADE BRIDGE.
- 2B STATION ARCADE BRIDGE.
- DEVELOPMENT OF BARWON WATER SITE- WEST INCLUDING CLOSURE OF CARR ST WEST AND PUBLIC REALM IMPROVMENTS.

PUBLIC REALM WORKS IN LONSDALE ST.

PUBLIC REALM UPGRAGES TO BELLERINE ST (NORTH).

- 4A NEW SOUTHERN PLATFORM WHICH ALIGNS WITH THE STATION ARCADE BRIDGE.
- DEVELOPMENT OF MULTI DECKED COMMUTER CAR PARK.
- DEVELOPMENT OF MIXED USE TRANSIT ORIENTED DESIGN WITH BUS INTERCHANGE. VERNER STREET AND BELLERINE STREET PUBLIC REALM UPGRADES.

Figure 41. Staging Plan

MOORABOOL STREET

This design study has been prepared to set out a comprehensive vision for the future development of both public and private land along Moorabool Street. The aim is to establish place making for the precinct, in a way that enhances the area from an environmental, social and economic perspective. The implementation of this comprehensive vision will take some time, and funding schemes to be realised.

INTRODUCTION

Moorabool Street in South Geelong, between Fyans Street and the railway line has been identified as a redevelopment opportunity. The area is well serviced by open space, public and private transport and shopping facilities. The area is within a 20-minute walk of central Geelong, the Belmont sub regional shopping precinct and the Barwon River.

Moorabool Street currently operates as a major connector road into central Geelong. It carries a high volume of traffic and is the City's preferred bicycle route connecting central Geelong to Waurn Ponds. A dedicated bicycle path is to be constructed along Moorabool Street.

This section of Moorabool Street has a direct interface with Kardinia Park where the swimming pool, netball courts, open space and the GMHBA stadium are located. However, there is a lack of safe connections between the existing commercial uses, the stadium and beyond to the South Geelong Train Station and the Barwon River.

Existing development within this part of Moorabool Street consists of 1 and 2 storey commercial buildings, including a mix of restricted retail, cafes/restaurants, offices and car yards uses. There are several areas of heritage significance within and adjacent to Moorabool Street.

The area has a limited number of street trees and a large number of on-street car parking spaces.

OPPORTUNITIES

The Moorabool Street precinct is a key redevelopment area, with potential for strong pedestrian links along Moorabool Street, and between Kardinia Park, the Train Station, the Barwon River and into Central Geeong.

The link from the river to the bay can be strengthened through improvement in the public realm.

The area has been identified through the retail strategy as not suitable for modern restricted retail uses, creating an opportunity to explore other land uses for redevelopment.

Given the location's proximity to services, the area is considered suitable as a mixed use, predominantly residential precinct.

There are opportunities for retail and commercial activity at street level with residential uses above.

There is no demand for a new shopping in this area, given the proximity to the Belmont sub regional centre and central Geelong. However, ground floor uses which service the local area and help create a destination around Kardinia Park are considered appropriate.

Water Sensitive Urban Design should be incorporated into the street network and new development.

All new development should be environmentally sustainable and achieve a high level of energy efficiently.

The function and quality of public spaces within the area requires improvement.



CHALLENGES

Moorabool street carries a significant amount of traffic. It is the only river crossing point which provides direct access to central Geelong from the southern Geelong suburbs.

Moorabool street is a wide busy street, with limited street trees and pedestrian crossing points. It creates a physical barrier to access Kardinia Park.

There is a mixture of old and new buildings within the area, therefore it is likely some buildings will be retained in the long term.

The interface with low scale residential development needs to be carefully managed.

New development should consider future noise impacts from GMHBA stadium.

The Moorabool Street precinct will;

- be transformed into a boulevard with improved amenity for pedestrian and cyclists;
- Introduce a mixed-use ground plane, with predominantly residential uses on the upper levels;
- Provide for a diverse population through an appropriate mix of dwelling types including accessible, adaptable and affordable housing.

DESIGN PRINCIPLES

- Create a consistent built form edge to Moorabool Street.
 - Improve the pedestrian experience by removing vehicle crossovers from the eastern edge of Moorabool Street and relocating them, where required, to an expanded rear lane (Lamb Place).
- Provide upper level setback on street edges and adjacent to heritage buildings.
 - Create high quality public plazas which will frame heritage buildings and become a focal point for the community; and
 - Ensure that new buildings respond to their context in order minimise their impact on the amenity of neighbouring dwellings and urban character of the surrounding area.
- Incorporate social housing within new development.



Example of blending heritage and new development, Victoria St, Brunswick



Example of building design showing setback upper storeys, defined street wall, and articulated facade, Harold Park apartments

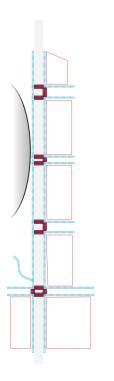


 ${\bf Example\ of\ green\ landscaped\ streets,\ Dandenong}$

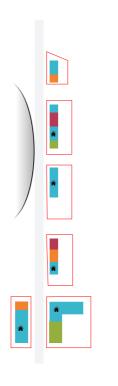


Example of safe separate cycle path, Dandenong

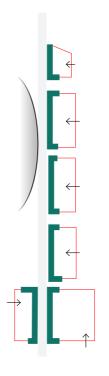
MOORABOOL STREET DEVELOPMENT AREA PRINCIPLES DIAGRAMS



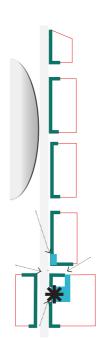
Create a continuious pedestrian path linking all streets



Introduce a mixed use ground plane with housing at the upper levels



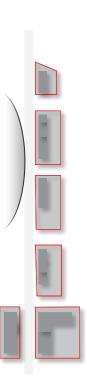
Create a street wall uninterupted by vehicle crossovers



Create a vibrant public space as a focal point



Consider a heigh strategy which is sensitive to residential and heritage buildings



Introduce a range of building typologies

Figure 43. Moorabool Street development area principles diagrams



Figure 44. Block views

CONCEPT PLAN MOORABOOL STREET REDEVELOPMENT AREA (PRIVATE DOMAIN)

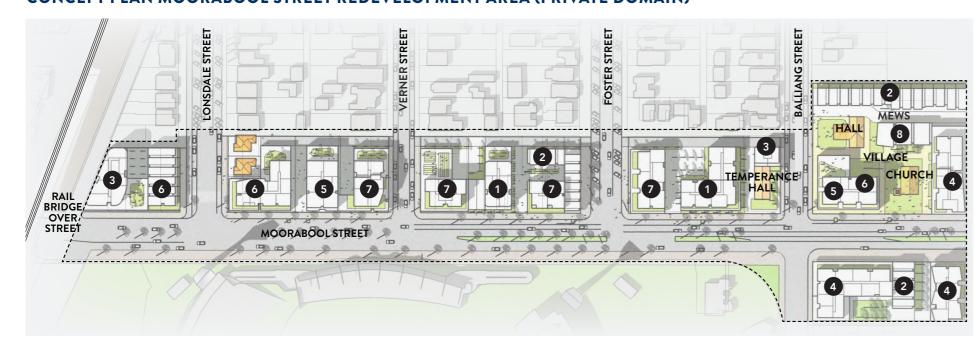


Figure 45. Concept Plan Moorabool Street redevelopment area (private domain)

INDICATIVE CONCEPT PLAN

An indicative concept plan has been developed to show how the area may look in the future and to better understand the areas development potential.

Important aspects of the concept that need to be considered in any redevelopment of the area include land use, built form and access and movement.

CONCEPT PLAN MOORABOOL STREET REDEVELOPMENT AREA (PRIVATE DOMAIN)

KEY

- 1 RESIDENTIAL (APARTMENTS)
- 2 RESIDENTIAL (TOWNHOUSE/ MAISONETTE)
- 3 COMMERICAL
- 4 COMMERCIAL (RESIDENTIAL ABOVE)
- 5 RETAIL (RESIDENTIAL ABOVE)
- 6 FOOD AND RECREATION (RESIDENTIAL ABOVE)
- 7 MIXED USE (RESIDENTIAL ABOVE
- 8 MIXED USE/ COMMUNITY CIVIC

Figure 45. Concept Plan Moorabool Street redevelopment area (private domain)

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LAND USE PLAN

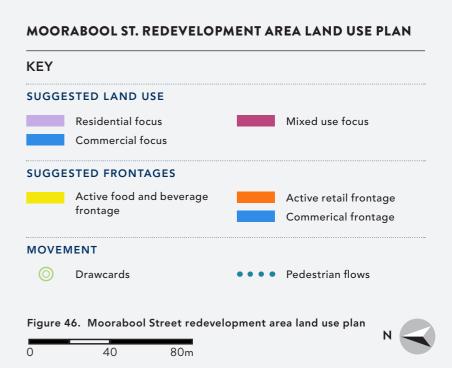
The area will transition over time into a vibrant primarily residential neighbourhood.

Small commercial uses on the ground floor are supported. The preferred location for non-residential uses is on ground floor street corners for consistency and better access.

Large, multi-level commercial uses are not supported, and are encouraged in Central Geelong and other commercial centres identified in the City of Greater Geelong Retail Strategy 2020-36.

Public spaces associated with heritage buildings are to be activated with retail or commercial uses addressing these spaces.

Consolidation of lots is encouraged to maximize development potential, but only to the extent that there are equitable development opportunities on adjacent lots.



BUILT FORM

Built form would be setback from Moorabool Street boundary to provide opportunity for garden and public plaza spaces to soften the street edge and provide a pleasant experience for pedestrians.

Upper levels are setback from Moorabool Street and heritage items.

Lower scale townhouse/ maisonette development is proposed adjacent to existing residential development.

Common spaces and private open space are to be designed to have a northerly aspect where possible.

High quality facade design and finishes are expected throughout the precinct, particularly where built form is adjacent to heritage buildings or on corner sites.

Architectural expression within each block should be varied.

Noise attenuation must be provided to all residential/sensitive use developments.

Water sensitive urban design should be incorporated into all new development.

BUILDING HEIGHTS

Development which addresses Moorabool Street (opposite the Stadium), the railway line and Fyans Street, could potentially be up to 7 storeys. Upper level setbacks would be required above 3 storeys from street frontages and public plazas.

Generally, development should step down in height towards existing development, including residential dwellings to the east. Development on the eastern boundary laneway could be up to 3 storeys with overlooking issues addressed through the building design.

The remainder of development would be 4 to 6 storeys as shown on section C-C.

ACCESS AND MOVEMENT

All new buildings should be setback from Lamb Place (rear lane) to allow rear loaded vehicular access.

No new vehicle crossovers will be supported on Moorabool Street where an alternative access is available, to create a more pedestrian friendly environment.



CROSS SECTION A-A



Figure 48. Cross Section A-A

CROSS SECTION B-B

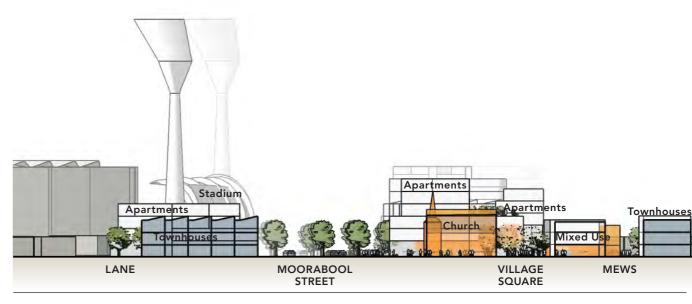


Figure 49. Cross Section B-B

LONG SECTION C-C



Figure 50. Long Section C-C

MOORABOOL STREET REDEVELOPMENT AREA PUBLIC REALM WORKS

An integrated, staged public realm and streetscape upgrade program is proposed within the Moorabool Street development area. The first stage of work would be the Better Bikes cycle path.

MOORABOOL STREET

EXISTING CONDITION:

- Wide asphalt carriageway in good condition.
- Asphalt footpaths in average condition with multiple vehicular crossing points.
- Brush Box on the eastern side of the road.
- Hoop Pine on the western side of the road (adjacent to the Stadium).
- A 30m wide road reservation.
- An established bus route.

STRATEGY PLAN:

- Provide for pedestrians, bicycles (as per Better Bikes plan) public transport and vehicular traffic.
- Provide large canopy trees along both sides of the road and median where possible.
- Develop WSUD solutions where possible, in the centre median, and the road edges and footpath especially where they can support better tree growth.
- Provide quality materials in footpaths including paving and street furniture.



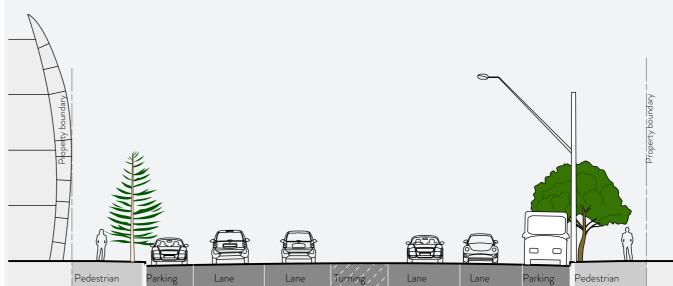


Figure 52. Moorabool Street, existing typical cross section



MATERIALS:

- Asphalt footpaths, possible feature bluestone.
- Trees within footpaths and median established within wide trenches of structural soil.
- Porous pavements for trees within footpath.
- Pedestrian lights within footpath zone.
- Lonsdale Street threshold crossing treatment could include asphalt flat-top with rough bluestone pitchers on edges.

TREE SPECIES:

- Hoop Pine retained and reinforced adjacent to Stadium.
- Queensland Brush Box retained and reinforced on the east side of Moorabool Street and west side north and south of the Stadium.
- Central median species, options include; Lemon Scented Gum, Spotted Gum, Smooth-barked Apple Myrtle.

MOORABOOL STREET PUBLIC REALM VISION:

Moorabool Street can be redeveloped as a boulevard with new trees along both sides and within a central median.

Moorabool Street will provide a separate bike path along the western edge.

A new signalised crossing at Lonsdale Street intersection will provide a formal crossing for pedestrians and cyclists accessing Kardinia Park.

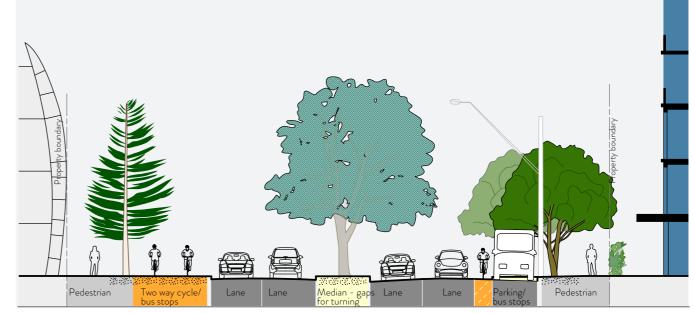
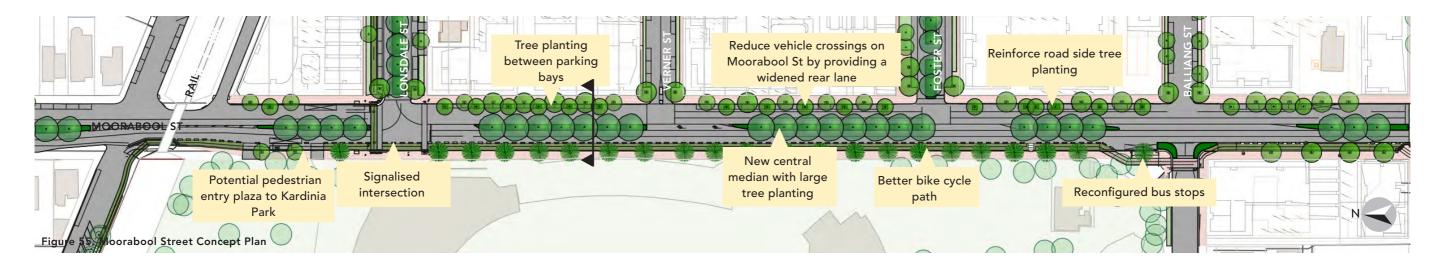


Figure 54. Moorabool Street, proposed typical cross section





OTHER PUBLIC REALM WORKS

Streetscapes outside the key development areas also present opportunity to be improved as part of a staged public realm and streetscape upgrade program.

A coordinated streetscape improvement program is proposed to significantly improve the walking environment of the suburb as well as reducing the heat island effect of large expanses of bitumen.

The main intervention proposed is the introduction of a central median which will dramatically improve pedestrian and cyclist crossing experience as well as provide opportunities for centre road tree planting.

Undergrounding of power throughout the study area is recommended as funds /grants become available to improve the appearance of the study area and assist in providing a consistent canopy cover.

At key corners kerb outstands are proposed to accommodate pedestrians wanting to cross the road and provide space for local activities relating to the social or commercial potential of the corner. The kerb extension can also tame dangerous driver behaviour.

Kerb outstands can also be used mid-block at key locations such as school crossings.

A consistent, elegant and adaptable palette of planting, pavement, public furniture, pedestrian lighting is envisaged.

Council is already progressing some of these public realm upgrades through the STiLS project. These upgrades were informed by the phase 1 consultation on the UDF.



Example of a central median. Rathdown Street, Carlton



Example of planted central median, City of Sydney



Example of a central median with water sensitve urban design treatment. City of Sydney



Example of water sensitive urban design, Dandenong



Example of a raised pedestrian crossing with 'rumble' pavement edges and kerb outstands. Taradale, New Zealand



Example of a raised pedestrian crossing with 'rumble' pavement, Moreland

OTHER PUBLIC REALM WORKS

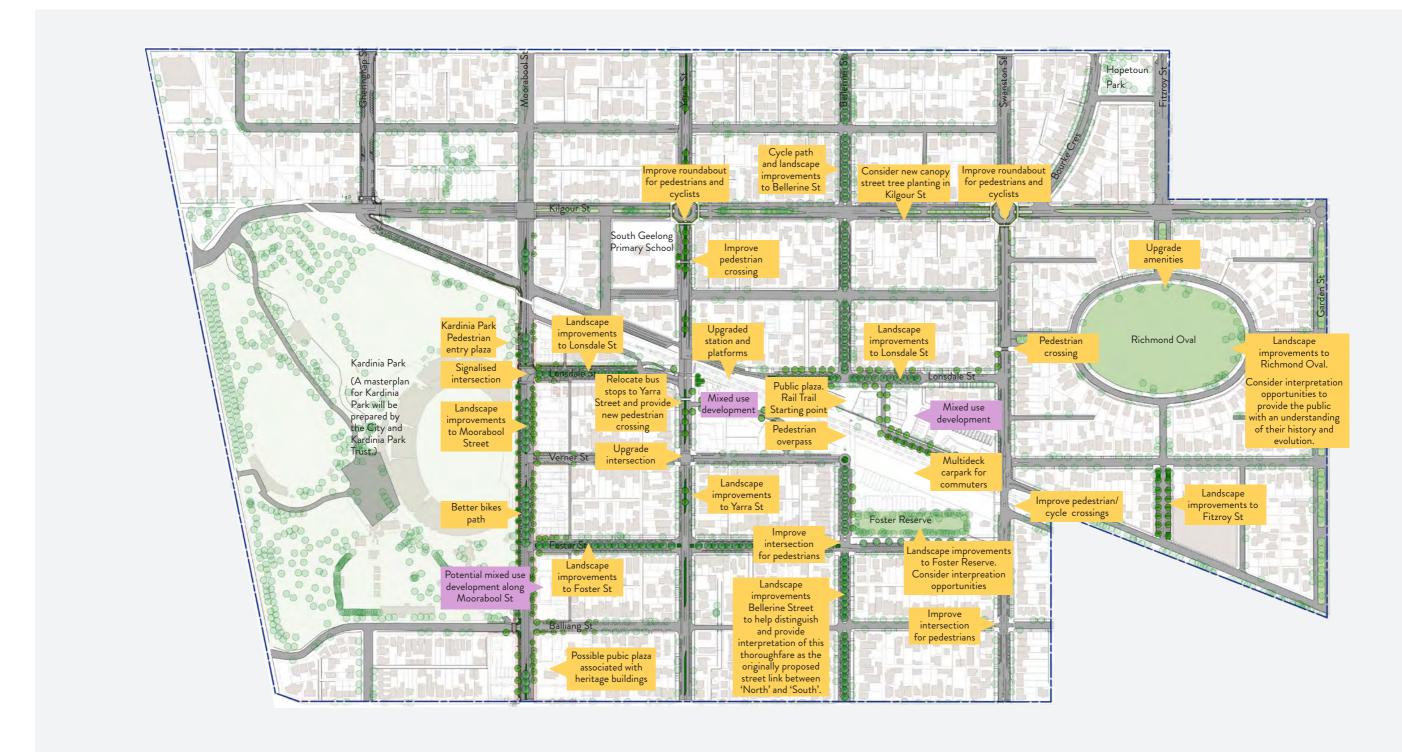


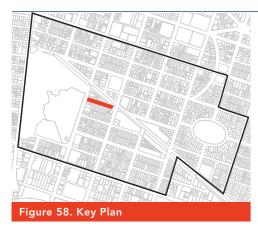


Figure 57. Public Realm Concept Plan Short - medium term scenario

OTHER PUBLIC REALM WORKS

Lonsdale Street is an important link between the Station Hub Precinct and Moorabool Street Precinct/ Kardinia Park. Improvements to the pedestrian and cyclist experience between these two nodes is considered very important.

LONSDALE STREET (WEST)



EXISTING CONDITION:

This section of Lonsdale Street is between Moorabool Street and Yarra Street key features include;

- Wide asphalt carriageway in good condition.
- Two-way cycle path.
- Concrete footpaths.
- Brush Box planting to road edges.
- A 30m wide road reservation.

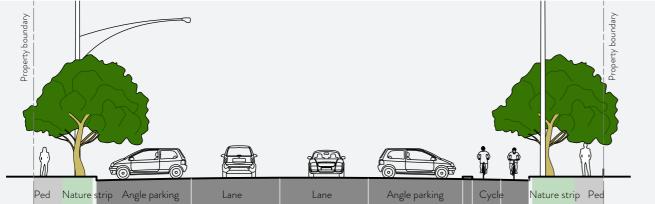


Figure 59. Lonsdale Street (West), existing typical cross section

STRATEGY PLAN:

- Provide for pedestrians, bicycles, buses and traffic.
- Provide parking to support Moorabool Street retail precinct and residents.
- Provide canopy trees.
- Staged introduction of vegetated central medians is recommended. This will require careful strategy of removal of car parking generally starting furthest away from key destinations, such as commercial areas.
- Develop WSUD solutions, especially where they can help support better tree growth.
- Reduce speed limit to 40 km/hr.

LONSDALE STREET (WEST) PUBLIC REALM VISION:

Lonsdale Street West will be maintained substantially in its present form, using existing pavement, trees and drainage. The cycle way will be maintained in its current form, with improved connections proposed to Moorabool Street and the Rail Trail.

Centre of the road parking is proposed to cater for retail, residential and commuter car parking demands. Sections of car parking zone will include planted medians with large canopy trees.

Note: Long term staged removal of centre road car parking and introduction of vegetated medians.

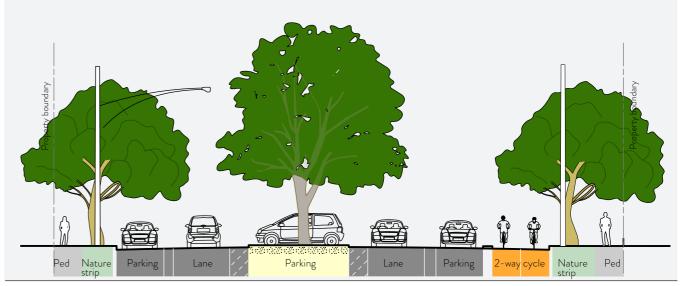


Figure 60. Lonsdale Street (West), proposed typical cross section

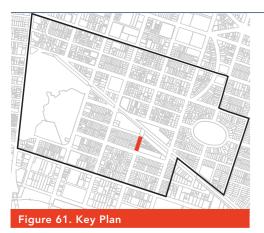
MATERIALS:

- Concrete footpaths.
- Trees within parking bays, established within wide trenches of structural soil.
- Trees within nature strips.
- Pedestrian lights within footpath zone.
- Pedestrian crossing threshold treatment could include asphalt flat top with rough bluestone pitchers.

- Brush Box planting maintained and reinforced in northern nature strip.
- Central median species, options including;
 Lemon Scented Gum, Spotted Gum,
 Smooth-barked Apple Myrtle.

BELLERINE STREET SOUTH (1)

Bellerine Street is an important historical street, being the first road connection between 'North' and 'South' Geelong. There is potential interpret this through landscape improvements along the length of this street and create a 'green' link right into the city.



EXISTING CONDITION:

This section of Bellerine Street is between Verner Street and Foster Street key features include;

- Wide asphalt carriageway in good condition.
- Gravel 90-degree parking on eastern road edge.
- Poorly defined edge to the park.
- Concrete footpaths on western property boundary.
- Brush Box on western road edge.
- A 30m wide road reservation.

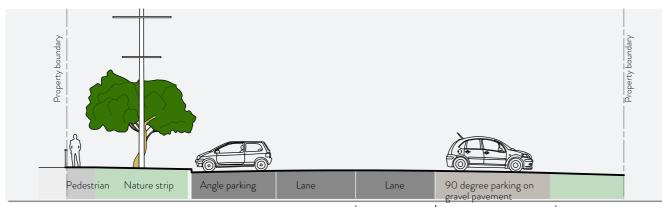


Figure 62. Bellerine Street South (1), existing typical cross section

STRATEGY PLAN:

- Develop Bellerine Street as a green link between the City and South Geelong.
- Provide for pedestrian, traffic and parking, including a pedestrian crossing over the railway lines.
- Provide large canopy trees along eastern side of the road and within a central median.
- Develop WSUD solutions where possible in the road and nature strip especially where they
 can support better tree growth.
- Underground power.
- Reduce speed limit to 40 km/hr.

BELLERINE STREET SOUTH PUBLIC REALM VISION:

Bellerine Street will become an important green street which provides interpretation of the historical first street connection between 'north' and 'south' Geelong.

Car parking in this section of the street will support the train station. The central road space will be reconfigured to provide a vegetated median with new canopy tree planting. Sections of centre median will allow for 90 degree car parking.

The street will be maintained substantially in its present form using existing pavement, trees and drainage. Upgrade of the eastern gravel section is required.

Note: Long term staged removal of centre road car parking and introduction of vegetated medians.

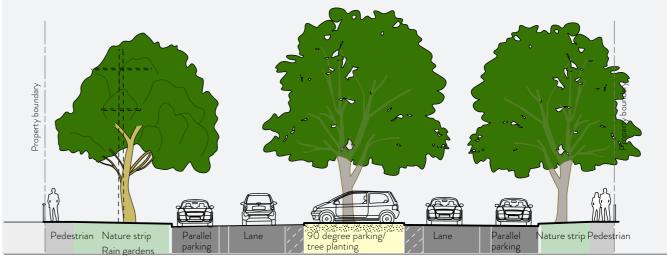


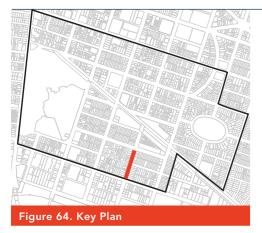
Figure 63. Bellerine Street South (1), proposed typical cross section

MATERIALS:

- Concrete footpaths, including a new footpath adjacent to the park.
- Trees within parking bays, established within wide trenches of structural soil.
- Trees within nature strips.
- Pedestrian lights within footpath zone.

- Brush Box planting on western road edges maintained and reinforced.
- Central median species, options include; Lemon Scented Gum, Spotted Gum, Smooth-barked Apple Myrtle.

BELLERINE STREET SOUTH (2)



EXISTING CONDITION:

This section of Bellerine Street is between Foster Street and Fyans Street, key features include;

- Wide asphalt carriageway in good condition.
- Gravel 90-degree parking on eastern road edge.
- Poorly defined edge to the park.
- Concrete footpaths on western property boundary.
- Brush Box on western road edge.
- A 30m wide road reservation.

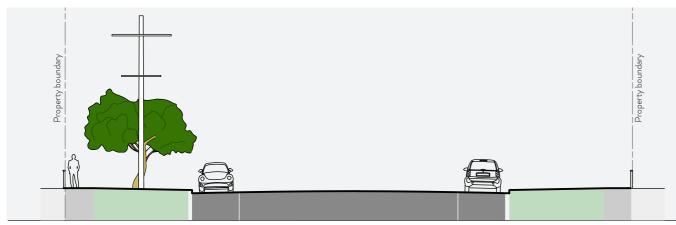


Figure 65. Bellerine Street South (2), existing typical cross section

STRATEGY PLAN:

- Develop Bellerine Steet as a green link between the 'north' and 'south' Geelong.
- Provide for pedestrian, traffic and parking.
- Provide large canopy trees along eastern side of the road and within a central median.
- Develop WSUD solutions where possible in the road and nature strip especially where they can support better tree growth.
- Underground power.
- Reduce speed limit to 40 km/hr.

BELLERINE STREET SOUTH (2) PUBLIC REALM VISION:

This section of the street will be maintained substantially in its present form using existing pavement, trees and drainage.

The central road space will be reconfigured to provide a vegetated median with new canopy tree planting.

Note: This section of roadway demonstrates the preferred long term condition for other streets within the study area, with no central parking and a vegetated median.

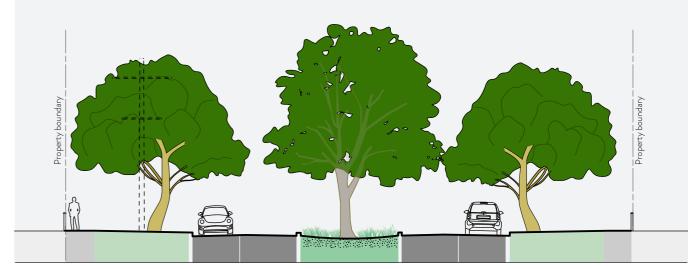


Figure 66. Bellerine Street South (2), proposed typical cross section

MATERIALS:

- Concrete footpaths.
- Trees within a central median. Consider water sensitive design solutions, slight regrading of laneways may be required.
- Trees within nature strips/ rain gardens.
- Pedestrian lights within footpath zone.

- Brush Box planting on road edges maintained and reinforced.
- Central median species, options include;
 Lemon Scented Gum, Spotted Gum,
 Smooth-barked Apple Myrtle.

The Urban Design Framework for South Geelong provides the basis for a number of short- and longer-term implementation actions. They include the following.

- A framework for capital works expenditure on priority projects for the public realm. Subject to
 the preparation of concept plans and detailed design plans for construction these works may be
 carried out according to the availability of funds.
- Changes to the planning scheme zone and overlays have been considered that will assist in achieving the strategic and design outcomes sought for South Geelong.

CONCEPT PLANS

The analysis and consultation processes have generated specific projects to become the subject of concept plans as part of the urban design framework.

Each concept plan will need another phase of design refinement, consultation and documentation before it can be implemented. They are big picture ideas that show a clear and coordinated way forward that can be developed over time as funds become available to implement them.

Some of these projects council will be able to deliver as part of the STiLS project in the short term if funding is successful.

PRIORITIES

Several projects need to be actioned to realise the vision created within this UDF. The following table captures projects which Council is primarily responsible for and identifies a priority for each project.

FUNDING SOURCES

Funds to supplement Councils budgets for capital works and more detailed investigations may be sourced from the Federal and State Governments.

PROJECT	TIMEFRAME	COMMENT
Moorabool Street - Better Bikes	1-3 years	Funding has been provided for the Moorabool Street Better Bike project.
Moorabool Street beautification	5+ years	More detailed design is required which will take into consideration the Kardinia Park Master Plan and the Rail Duplication Project. These projects are currently under consideration.
Moorabool Street rezoning	3-5 years	Timing to rezone this area will be subject to the criteria established on page 53.
Barwon Water site rezoning	1-3 years	Barwon Water have indicated they are seeking to re-zone their site as soon as posisble.
Station land redevelopment and multi-deck car park	10+ years	Long term project to be pursued once Station is upgraded and Barwon Water site is redeveloped.
South Geelong Street Safety upgrades (STiLS)	1-3 years	Council is currently pursuing funding opportunities for these works.
Carr Street changes and public realm	3-5 years	Subject to detailed design, rezoning of the Barwon Water site, and sale of Council land.
Beautification of streets surrounding station, including Lonsdale Street	5+ years	Future budget bids will need to be made to deliver on the proposed changes to streets.
Undertake further heritage assessments of the three potential character areas identified in the Heritage Character Study prepared by Authentic Heritage Services	1-3 years	To determine whether the areas warrant the application of a Heritage Overlay.

IMPLEMENATION OF THE MOORABOOL STREET PRECINCT

To achieve The City's desired outcome for the Moorabool Street Precinct a number of changes to the planning controls affecting the area will be required;

- The area should be rezoned to allow a mixture of commercial and residential uses to occur within the precinct. The timing for any rezoning of land should be dependent on a number of factors including:
 - Developer interest in the area.
 - A detailed understanding of the capacity of the area to accommodate social housing opportunities. This could be done as part of a developer or Council lead proposal.
 - A detailed understanding of what public realm upgrades are required in the area to accommodate the new development, taking into consideration the timing for delivery of the Better Bike Project, Kardinia Park Master Plan and the Rail Duplication. This will ensure that developers contribute to public realm upgrades in a planned way, as they relate to their specific development.
- A built form overlay, such as a Design and Development Overlay (DDO) to guide the development
 of land should be applied to the precinct. The built form controls should address building height,
 setbacks, widening of the laneway, protection of heritage buildings and the residential interface,
 separation between buildings, vehicle and pedestrian access, noise attenuation, WSUD and ESD
 requirements.
- The Planning Policy Framework should be updated to:
 - Amend Clause 21.06-3 Urban Consolidation, to identify Moorabool Street as a Key Development area.
 - Create a new policy direction in Clause 21 to specify the types and location of commercial uses that will be supported within the Moorabool Street precinct.

Council will also be required to undertake public realm upgrades that have been identified in this UDF for Moorabool Street. These works will need to be in association with the Kardinia Park Master Plan, the Rail Duplication and Council's better Bikes project. These works will be subject to future funding bids through state and local government budget processes.

IMPLEMENATION OF THE SOUTH GEELONG STATION HUB KEY DEVELOPMENT AREA

The City will work cooperatively with Barwon Water, the Department of Transport and other relevant stakeholders to realise the vision and objectives for the area.

Significant public investment at local and state level will be required to upgrade key pedestrian routes to connect South Geelong Station and Kardinia Park.

Development contributions secured by Section 173 agreements can help provide the public realm and streetscape improvements identified for the precinct.

Close part of Carr Street in conjunction with station redevelopment and Barwon Water site redevelopment.

Plan for staging of development by different stakeholders as funds become available.

Amendments are recommended the Greater Geelong Planning Scheme to facilitate implementation of the UDF:

- Amend Clause 21.06-3 Urban Consolidation, to identify the South Geelong Station Hub as a Key Development area.
- Expansion of the South Geelong Station Increased Housing Diversity Area as delineated in Clause 22.63 to an 800 m walking distance of the South Geelong railway station.
- Rezone expanded IHDA to GRZ4.
- Support the application of appropriate zoning within the Development Area to facilitate the desired mixed use outcome.
- Apply planning controls, such as a Design and Development Overlay and/or Development Plan Overlay, that will ensure that redevelopment achieves transit oriented development, high quality urban design outcomes, enhanced pedestrian and cycling connectivity and safety, safer and more efficient car parking and greener streetscapes.
- Ensure future planning controls are informed by the principles set out in Section 6 above.

